

**PHASE II ENVIRONMENTAL SITE ASSESSMENT  
US EPA BROWNFIELDS HAZARDOUS ASSESSMENT GRANT:  
BF-98796801-0**

**1000 South 7<sup>th</sup> Street  
Parcel: 754436333003**

**POTTAWATTAMIE COUNTY  
COUNCIL BLUFFS, IOWA**

**May 2012**

**HR GREEN, INC. PROJECT NO. 728500J02**

*Prepared for:*

**CITY OF COUNCIL BLUFFS**

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## 1.0 EXECUTIVE SUMMARY

The City of Council Bluffs is participating in the U.S. Environmental Protection Agency (EPA) Brownfields Hazardous Assessment program. The goal of this economic development initiative is to facilitate community revitalization and promote sustainable economic conditions by addressing any real or perceived environmental issues associated with abandoned or underused properties within the Council Bluffs Brownfields Redevelopment Area.

HR Green Inc. (HR Green) was retained by the City of Council Bluffs (City) to conduct a Phase II Environmental Site Assessment (ESA) on the property located at 1000 S. 7<sup>th</sup> Street, hereinafter referred to as the Subject Property, in the City of Council Bluffs, Pottawattamie County, Iowa (Appendix B, Figure 1).

Four borings were advanced on the Subject Properties on March 21, 2012, and soil and groundwater samples were collected for analysis. Soil and groundwater sampling results have been compared against the Iowa Administrative Code (IAC) 567 *Chapter 137: Iowa Land Recycling Program and Response Action Standards* and the cumulative health risks for the detected constituents have been calculated. The results are provided in this document. The findings and conclusions are summarized as follows:

- Arsenic, benzo[b]fluoranthene, dibenzo[a,h]anthracene, and benzo[a]pyrene were detected above Statewide Standards in Range 1 (<2-feet bgs) soil. The calculated cancer risk for Range 1 soil for a site worker and site resident were acceptable. The calculated non-cancer risk for Range 1 soil was acceptable for a site worker but was not acceptable for a site resident. The site resident non-cancer risks for the heart and blood were >1 and therefore unacceptable.
- Several volatile organic compounds (VOCs), total extractable hydrocarbons (TEHs), and polynuclear aromatic hydrocarbons (PAHs) were detected in Range 2 (>2-feet bgs) soils. Benzo[a]anthracene, benzo[a]pyrene, dibenzo[a,h]anthracene, benzene, and ethylbenzene were all detected above their applicable Statewide Standard.
- Several VOC, TEH, metals, and PAH compounds were detected above applicable Statewide or Tier 1 Standards in groundwater samples. Constituents detected above their applicable Standard include: TEH-diesel, TEH-motor oil, benzene, ethylbenzene, 1,2,4-trimethylbenzene, acenaphthene, acenaphthylene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, methylnaphthalene, naphthalene, phenanthrene, pyrene, and Barium.
- Free Phase coal tar was observed during soil logging/screening and groundwater sampling from soil boring SB-1. The coal tar is suspected to be related to the former manufacturing gas plant located adjacent to the south of the Subject Property. Free phase coal tar has been observed throughout the area as identified in the Phase I ESA. The majority of the detections above Statewide Standards were from SB-1 where the free phase coal tar was observed.

Based on the data collected, it is the opinion of HR Green that the detected contaminants and free phase coal tar observed during this Phase II ESA represents a

possible risk to the human health and the environment depending on the potential use of the property. The City of Council Bluffs has a groundwater ordinance (Chapter 4.33), which prevents the installation of private wells for groundwater consumption; therefore, the groundwater ingestion pathway is incomplete. However, the City of Council Bluffs should consider possible vapor intrusion issues if redevelopment of the site was to include a commercial building.

HR Green recommends that the current property owner and/or the City send a copy of this Phase II ESA to the Iowa Department of Natural Resources (IDNR) Contaminated Sites Section for regulatory review based on presence of free phase coal tar identified in soil boring SB-1.

## **2.0 INTRODUCTION**

The City of Council Bluffs is participating in the U.S. Environmental Protection Agency (EPA) Brownfields Hazardous Assessment program. The goal of this economic development initiative is to facilitate community revitalization and promote sustainable economic conditions by addressing any real or perceived environmental issues associated with abandoned or underused properties within the Council Bluffs Brownfields Redevelopment Area.

### **2.1 Purpose**

The objective of this assessment was to evaluate environmental impairment to the property resulting from the RECs identified during the Phase I ESA process. The data gathered during this assessment will assist the city in evaluating the feasibility of redevelopment by comparing constituent concentrations on the property to the risk-based standards outlined in Iowa Administrative Code (IAC) 567 *Chapter 137: Iowa Land Recycling Program and Response Action Standards* or the Tier 1 Levels in IAC *Chapter 135: Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (USTs)*.

### **2.2 Problem Statement**

The City of Council Bluffs is evaluating abandoned and underused properties with the intent of encouraging redevelopment. Evaluation of these properties is conducted through the collection and analysis of environmental data.

Evaluation of environmental impairment is conducted using the regulatory programs outlined in IAC. Evaluation of environmental impairment not associated with USTs involves risk-based evaluation and response action through the voluntary Land Recycling Program (LRP) as set forth in IAC 567-137(457B) *Chapter 137: Iowa Land Recycling Program and Statewide Response Action Standards* (IAC 137). In the event contamination is associated with USTs, IAC 137 defers to the evaluation criteria outlined in IAC 567-135(455B) *Chapter 135: Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks* (IAC 135). For this Project, soil and groundwater evaluations for public risk were conducted according to IAC 135 and IAC 137, depending on the source of contamination.

### **2.3 Limitations and Exceptions of Assessments**

The report has been prepared in accordance with generally accepted environmental methodologies referred to in ASTM 1903-11, and contains all of the limitations inherent in these methodologies. No other warranties, expressed or implied, are made as to the

professional services provided under the terms of our contract and included in this report.

#### **2.4 Limiting Conditions and Methodologies Used**

No ESA can eliminate all uncertainty. Furthermore, any sample, either surface or subsurface, taken for chemical analysis may or may not be representative of a larger population. Professional judgment and interpretation are inherent in the process and uncertainty is inevitable. Additional assessment may be able to reduce the uncertainty.

Even when Phase II ESA work is executed with an appropriate site-specific standard of care, certain conditions present especially difficult detection problems. Such conditions may include, but are not limited to, complex geological settings, the fate and transport characteristics of certain hazardous substances and petroleum products, the distribution of existing contamination, physical limitations imposed by the location of utilities and other man-made objects, and the limitations of assessment technologies.

Phase II ESAs do not generally require an exhaustive assessment of environmental conditions on a property. There is a point at which the cost of information obtained and the time required to obtain it outweigh the usefulness of the information and, in fact, may be a material detriment to the orderly completion of transactions. If hazardous substance or petroleum releases are confirmed on a parcel of property, the extent of further assessment is related to the degree of uncertainty that is acceptable to the user with respect to the real estate transaction.

Measurements and sampling data only represent the site conditions at the time of data collection. Therefore, the usability of data collected as part of this Phase II ESA may have a finite lifetime depending on the application and use being made of the data. An environmental professional should evaluate whether the generated data are appropriate for any subsequent use beyond the original purpose for which it was collected.

### **3.0 BACKGROUND**

The Subject Property is located within the NE ¼ of the SW ¼ of Section 36, Township 75 North, Range 44 West in Pottawattamie County, Iowa and are further located by latitude and longitude at 41.252219° North and -95.855272° West (Figure 1, Appendix B).

#### **3.1 Site Characteristics**

The Subject Property is located in a primarily industrial area of the city. The property and adjacent parcels to the east/southeast, south, west/southwest, and northwest are zoned I-2 (General Industrial District). The adjacent properties to the north and northeast are zoned I-1 (Light Industrial District). The adjacent parcel to the west/southwest is a city-owned building maintenance facility, while the adjoining parcel to the east/southeast is used for utility operations. The parcels to the northwest and northeast contain a commercial trucking company and light industrial development, respectively. The adjoining parcels to the north and south are vacant lots, while the latter is used for equipment and material storage.

The Subject Property consists of two separate adjoining parcels (PIN #'s: 754436333001 and 754436333003). The parcel identified as PIN# 754436333003 is a vacant lot while the other the parcel identified consists of vacant buildings and grain bins associated with

a former feed mill. The Subject Properties are relatively flat with surface drainage to the streets.

### **3.2 Phase I Environmental Site Assessment**

HR Green performed a Phase I ESA on the Subject Property during February 2012. The 2012 assessment revealed evidence of five RECs with potential to impact the subject property. The RECs are summarized below.

On Site RECs:

1. The historical use of the property (parcel identified as 1000 South 7<sup>th</sup> Street) as a feed and milling company from approximately 1950-2000. Common materials associated with grain storage include fertilizers, heavy metals, pesticides, nitrogen, and phosphides.
2. Historical Sanborn maps identified a railroad siding running transversely across the property from east to west from approximately 1891-1968. Common materials associated with railroads include: alkalis, antiseptics, cutting fluids, detergents, diesel fuel, fungicides, heating oil, herbicides, insecticides, lacquers, lubricants, paint removers, paints, petroleum fuels, pitch, solvents and tar and derivatives.

Off Site RECs:

3. According to Sanborn maps the adjacent parcel to the north was railroad right-of-way and tracks from 1928-1968. Nine east-west railroad tracks were located within 340 feet to the north of the property. Further, historical Sanborn maps from 1891-1896 identified an east-west railroad track located along 10th Avenue. Common materials associated with railroads include: alkalis, antiseptics, cutting fluids, detergents, diesel fuel, fungicides, heating oil, herbicides, insecticides, lacquers, lubricants, paint removers, paints, petroleum fuels, pitch, solvents and tar and derivatives.
4. The parcels located adjacent to the south and southeast of the property were used as a manufactured gas plant. Historic Sanborn maps depict the following on the parcel located adjacent to the south of the property: a tar pit in the southeastern portion of the parcel in 1928, four oil tanks along the northern portion of the parcel from 1962-1968, and various gasometers from throughout the parcel from 1891-1968. Historic Sanborn maps depict the following two buried oil tanks on the parcel located adjacent to the southeast of the property in 1928. The IDNR Contaminated Sites database contains a letter from the IDNR to EPA Region 7 (dated 03/24/2009) requesting the EPA consider taking the lead in attempting to negotiate a consent order amongst potentially responsible parties (PRP) or take other appropriate action to address the contaminated manufacturing gas plant (see Appendix G of Phase I ESA). The referenced letter contains a map which delineates the “approximate limits of known coal tar contamination.” It appears the contamination may have impacted the southern limits of the property. Common materials associated with coal gasification include: ammonia, chromium, cyanides, polynuclear aromatic hydrocarbons (PAHs), benzene, and xylenes.
5. The adjacent parcel to the west/southwest of the property was a co-op/petroleum products company from approximately 1935-1998. Historic Sanborn maps identified an oil warehouse and approximately 9 oil tanks from 1962-1968. The facility was assigned the LUST number on 05/11/1990 for an incident involving the release of gasoline and diesel fuel. Free product recovery activities have taken place at the

facility since 1999 and the site continues to be monitored on a monthly basis by the responsible party for the IDNR. Soil and groundwater contamination plume maps obtained from the IDNR indicate the benzene, total extractable hydrocarbons (TEHs), and total organic hydrocarbons (TOH) contamination is contained to the northeast portion of the property (see Appendix G). However, recent flooding in the area may have caused a shift in the direction of groundwater flow.

A detailed sampling plan was prepared to assess the RECs and presented in the EPA Brownfields Assessment grant required Property Specific Sampling and Analysis Checklist (PSSAC) dated March 2012.

#### **4.0 PHASE II ACTIVITIES**

Phase II field investigation activities were conducted on March 21, 2012 to investigate potential impact from RECs identified during the Phase I ESA. Four soil borings (SB-1 through SB-4) were completed on the property using a direct-push truck-mounted geoprobe with a 1.5-inch macro-core and acetate liners.

No site-specific conditions warranted deviation from the sampling plan. Soil sample locations are shown on Figure 2 (Appendix B). Laboratory analytical reports can be found in Appendix C. Soil boring logs are provided in Appendix D. The results are described in the following sections.

##### **4.1 Soil Assessment Results**

The four borings were advanced to depths of 15 or 20 feet bgs during the Phase II ESA. Soil samples were collected over the full depth of the soil boring, screened for the presence of VOCs using a photoionization detector (PID), and logged for geologic materials. Soil samples with a PID reading greater than 10 parts per million (ppm) were collected and submitted to TestAmerica Laboratories, Inc. (TestAmerica) to be analyzed for the presence of VOCs, TEHs, and PAHs. In addition, select Range 1 (<2 feet below ground surface (bgs)) soil samples were collected from each soil boring to be analyzed for the presence of Resource Conservation and Recovery Act (RCRA) metals, PAHs, pesticides, herbicides, nitrate, and ammonia.

The PID readings observed were generally low (<10 ppm) with the exception of a few elevated PID readings (>10 ppm) observed in soil borings SB-1, SB-2, and SB-3 (See soil boring logs in Appendix D). It should be noted that a strong odor and sheen was observed during logging/screening of soils from 8 to 15 feet bgs in soil boring SB-1 and is suspected to be related to the former manufacturing gas plant located adjacent to the south of the Subject Property.

Laboratory analytical results revealed concentrations of arsenic, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, and dibenzo(a,h)anthracene were detected above Statewide Standards from the soil samples collected. Herbicides, ammonia and nitrate were not detected above laboratory reporting limits. One pesticide constituent (4, 4'-DDD) was detected in soil sample SB-1 (0-2') at a concentration (0.00928 milligrams per kilogram (mg/kg)) below the Statewide Standard of 10 mg/kg. No other pesticide constituents were detected above laboratory reporting limits. Tables 1, 2, and 3 summarize concentrations of metals, VOCs, PAHs, and TEHs detected above laboratory limits.

**Table 1 - Summary Soil Analytical Results - Metals (mg/kg)**

Constituent	Statewide Standard	Sample ID		
		SB-1 0-2'	SB-4 0-2'	DUP-7 (SB-1 0-2')
Chromium	210	<12.3	<b>15.9</b>	<b>18.1</b>
Cadmium	70	<12.3	<b>2.15</b>	<3.68
Arsenic	17	<b>16.0</b>	<b>21.0</b>	<b>17.2</b>
Barium	15000	<b>90.9</b>	<b>205</b>	<b>292</b>
Mercury	23	<b>0.0887</b>	<b>0.208</b>	<b>0.0660</b>
Lead	400	<b>63.8</b>	<b>305</b>	<b>39.6</b>
Silver	370	<12.3	<b>1.64</b>	<3.68

NOTE: **Bold** indicates concentration above laboratory reporting limits / Shaded indicates concentration above applicable Standard

**Table 2**  
**Summary of Soil Analytical Results - PAH (mg/kg)**

Constituent	Statewide Standards	SB-1 0-2'	SB-2 0-2'	SB-3 0-2'	SB-4 0-2'	SB-4 12-14'	SB-1 14-16'	DUP-1 (SB2 0-2')
Acenaphthene	3400	<0.730	<0.0117	<0.0113	<0.355	<0.0136	<b>5.54</b>	<0.0115
Acenaphthylene	1700	<b>2.38</b>	<0.0117	<b>0.0463</b>	<0.355	<0.0136	<b>45.2</b>	<0.0115
Anthracene	17000	<0.730	<0.0117	<0.0113	<0.355	<0.0136	<b>25.7</b>	<0.0115
Benzo[a]anthracene	3.1	<b>3.05</b>	<b>0.0235</b>	<b>0.116</b>	0.660	<0.0136	<b>13.1</b>	<b>0.0323</b>
Benzo[a]pyrene	0.31	<b>3.00</b>	<b>0.0276</b>	<b>0.156</b>	<b>0.998</b>	<0.0136	<b>10.6</b>	<b>0.0357</b>
Benzo[b]fluoranthene	3.1	<b>3.94</b>	<b>0.0350</b>	<b>0.160</b>	<b>0.971</b>	<0.0136	<b>6.68</b>	<b>0.0480</b>
Benzo[g,h,i]perylene	170	<b>2.86</b>	<b>0.0223</b>	<b>0.105</b>	<b>0.669</b>	<0.0136	<b>3.22</b>	<b>0.0295</b>
Benzo[k]fluoranthene	31	<b>1.81</b>	<0.0117	<b>0.0696</b>	<b>0.415</b>	<0.0136	<b>2.64</b>	<b>0.0124</b>
Chrysene	310	<b>3.56</b>	<b>0.0323</b>	<b>0.132</b>	<b>0.779</b>	<0.0136	<b>11.5</b>	<b>0.0400</b>
Dibenzo(a,h)anthracene	0.31	<b>0.802</b>	<0.0117	<b>0.0292</b>	<b>&lt;0.355</b>	<0.0136	<b>0.974</b>	<0.0115
Fluoranthene	2300	<b>1.98</b>	<b>0.0296</b>	<b>0.0879</b>	<b>0.556</b>	<0.0136	<b>19.0</b>	<b>0.0381</b>
Fluorene	2300	<0.730	<0.0117	<0.0113	<0.355	<0.0136	<b>28.4</b>	<0.0115
Indeno[1,2,3-cd]pyrene	3.1	<b>2.15</b>	<b>0.0161</b>	<b>0.0834</b>	<b>0.509</b>	<0.0136	<b>2.69</b>	<b>0.0210</b>
Methylnaphthalene, 2	240	<0.730	<b>0.0284</b>	<b>0.0183</b>	<0.355	<0.0136	<b>4.85</b>	<b>0.0115</b>
Naphthalene	1100	<0.730	<b>0.0123</b>	<b>0.0158</b>	<0.355	<0.0136	<b>215</b>	<0.0115
Phenanthrene	1700	<b>0.764</b>	<b>0.0453</b>	<b>0.0371</b>	<0.355	<0.0136	<b>78.4</b>	<b>0.0438</b>
Pyrene	1700	<b>4.00</b>	<b>0.0336</b>	<b>0.132</b>	<b>0.893</b>	<0.0136	<b>33.6</b>	<b>0.0453</b>

NOTE: **Bold** indicates concentration above laboratory reporting limits and Shaded indicates concentration above applicable Standard

**Table 3**  
**Summary Soil Analytical Results – VOCs & TEHs (mg/kg)**

Constituent	Statewide Standard	Site/Sample ID					
		SB-1 14-16'	SB-2 2-4'	SB-3 0-2'	SB-4 12-14'	DUP-3 SB-2 2-4'	DUP-6 SB-4 12-14'
<b>TEHs</b>							
Diesel	3800*	<b>835</b>	<11.9	<12.0	<19.6	<11.7	NA
Gasoline	NC	<b>598</b>	<11.9	<12.0	<19.6	<11.7	NA
Motor Oil	NC	<b>346</b>	<11.9	<b>22.0</b>	<19.6	<11.7	NA
<b>VOCs</b>							
Benzene	88	<b>3.31</b>	<0.536	<0.454	<0.339	NA	<0.674
Butylbenzene, n-	23000	<b>1.03</b>	<0.536	<0.454	<0.339	NA	<0.674
Cumene (Isopropylbenzene)	7600	<b>0.779</b>	<0.536	<0.454	<0.339	NA	<0.674
Ethylbenzene	7600	<b>19.4</b>	<0.536	<0.454	<0.339	NA	<0.674
Naphthalene	1100	<b>494</b>	<2.68	<2.27	<1.69	NA	<3.37
n-Propylbenzene	7600	<b>0.992</b>	<0.536	<0.454	<0.339	NA	<0.674
p-Isopropyltoluene	NC	<b>1.27</b>	<0.536	<0.454	<0.339	NA	<0.674
sec-Butylbenzene	NC	<b>18.3</b>	<0.536	<0.454	<0.339	NA	<0.674
Toluene	6100	<LOD	<0.536	<0.454	<0.339	NA	<0.674
Trimethylbenzene, 1,2,4-	3800	<b>20.7</b>	<0.536	<0.454	<0.339	NA	<0.674
Trimethylbenzene, 1,3,5-	3800	<b>5.98</b>	<0.536	<0.454	<0.339	NA	<0.674
Xylene, Mixture	15000	<b>23.7</b>	<1.61	<1.36	<1.02	NA	<2.02

**NOTE:** **Bold** indicates concentration above laboratory reporting limits and **Shaded** indicates concentration above applicable Standard. NC: Not Calculated / NA: Not Analyzed / \*Tier 1 Look-Up Value

#### 4.2 Groundwater Assessment Results

Groundwater samples were collected from each soil boring location with disposable polyethylene tubing via either a 4-foot stainless steel screen-point sampler or temporary monitoring well constructed of 1-inch diameter PVC riser with 5-feet of screen. Once the temporary well was completed or screen-point sampler was driven to the desired depth, groundwater was purged and sampled using a peristaltic pump with disposable polyethylene tubing. The collected groundwater samples were submitted to TestAmerica to be analyzed for VOCs, TEHs, PAHs, RCRA metals, nitrates, ammonia, herbicides, and pesticides.

Groundwater samples were collected from the four boring locations as shown on Figure 2 in Appendix B. Laboratory analytical reports can be found in Appendix C and temporary well construction details or screen point sample depths are shown on the soil boring logs in Appendix D.

Concentrations of VOCs, TEHs, PAHs, pesticides, nitrate, ammonia, and RCRA metals were detected above laboratory reporting limits in groundwater samples collected from the 1000 S 7<sup>th</sup> Street property. Several VOCs, PAHs, and RCRA metals were detected above Statewide Standards. The majority of the detections above Statewide Standards were from SB-1 where free phase coal tar was observed during soil logging, screening, and groundwater sampling. In addition, concentrations of TEH-diesel and TEH-motor oil were also detected in SB-1 at concentrations exceeding the Tier 1 Look-up value. Concentrations of arsenic, lead and barium were also detected above Statewide Standards in the groundwater sample collected from soil boring SB-4.

Table 4 below summarizes the analytical results for detected VOCs, TEHs, PAHs, RCRA metals, nitrate, ammonia, pesticides, and herbicides in groundwater collected from the Subject Property.

**Table 4 - Groundwater Analytical Results (milligrams per liter)**

Constituent	Statewide Standard		SB-1	SB-2	SB-3	SB-4	Dup-2 (SB-2)	Dup-5 (SB4)	Trip Blank	Field Blank
	Protected	Non-Protected								
<b>Total Extractable Hydrocarbons</b>										
Diesel	1.2*	75.0*	<b>63.4</b>	<0.0909	<0.411	<0.300	<b>0.163</b>	NA	NA	<0.300
Gasoline	NC	NC	<b>9.04</b>	<b>0.115 J</b>	<0.411	<0.300	<0.000127	NA	NA	<0.300
Motor Oil	0.4*	40*	<b>29.2</b>	<b>0.0699</b>	<0.411	<0.300	<b>0.0842</b>	NA	NA	<0.300
<b>Volatile Organic Compounds</b>										
Acetone	6.3	32	<LOD	<b>0.00454 J</b>	<b>0.00204 J</b>	<0.00179	<b>0.00301 J</b>	NA	<0.00179	<b>0.00478 J</b>
Benzene	0.005	0.10	<b>1.06</b>	<0.000110	<b>0.000110 J</b>	<0.000110	<0.000110	NA	<0.000110	<0.000110
Butylbenzene, n-	2.1	10	<b>0.00735</b>	<0.000370	<0.000370	<0.000370	<0.000370	NA	<0.000370	<0.000370
Chloroform	0.08	0.57	<b>0.002 J</b>	<0.000280	<0.000280	<0.000280	<0.000280	NA	<0.000280	<0.000280
cis-1,2-Dichloroethene	0.07	0.35	<0.000650	<b>0.000160 J</b>	<0.000130	<0.000130	<0.000130	NA	<0.000130	<0.000130
Isopropylbenzene (Cumene)	0.7	3.5	<b>0.0189</b>	<0.000190	<0.000190	<0.000190	<0.000190	NA	<0.000190	<0.000190
Ethylbenzene	0.7	3.5	<b>1.1</b>	<0.000210	<0.000210	<0.000210	<0.000210	NA	<0.000210	<0.000210
Isopropyltoluene p-	NC	NC	<b>0.0126</b>	<0.000140	<0.000140	<0.000140	<0.000140	NA	<0.000140	<0.000190
Methylene Chloride (Dichloromethane)	0.005	0.47	<0.000850	<b>0.000190 J</b>	<b>0.000780 J</b>	<0.000170	<b>0.000310 J</b>	NA	<b>0.000250 J</b>	<b>0.000720 J</b>
Propylbenzene, N-	0.7	3.5	<b>0.0169</b>	<0.000100	<0.000100	<0.000100	<0.000100	NA	<0.000100	<0.000100
Naphthalene	0.1	0.7	<b>14.3</b>	<0.000370	<0.000370	<0.000370	<0.000370	NA	<0.000370	<0.000370
Toluene	1	5	<b>0.0584</b>	<b>0.000190 J</b>	<b>0.000210 J</b>	<b>0.00026 J</b>	<b>0.000250 J</b>	NA	<0.000150	<b>0.160 J</b>
Trimethylbenzene, 1,2,4-	0.35	1.8	<b>0.407</b>	<0.000200	<0.000200	<0.000200	<0.000200	NA	<0.000200	<0.000200
Trimethylbenzene, 1,3,5-	0.35	1.8	<b>0.109</b>	<0.000200	<0.000200	<0.000200	<0.000200	NA	<0.000200	<0.000200
Xylene, Mixture	10	50	<b>1.18</b>	<b>0.000160 J</b>	<0.000130	<b>0.00021 J</b>	<b>0.000200 J</b>	NA	<0.000130	<0.000130
Bromomethane	0.01	0.05	<0.0011	<0.000220	<0.000220	<0.000220	<0.000220	NA	<b>0.000220 J</b>	<0.000220
Chloroethane	2.8	14	<0.000750	<0.000150	<0.000150	<0.000150	<0.000150	NA	<b>0.000160 J</b>	<0.000150
2,2-Dichloropropane	NC	NC	<0.000900	<0.000180	<0.000180	<0.000180	<0.000180	NA	<0.000180	<b>0.000180 J</b>

**Table 4 - Groundwater Analytical Results (milligrams per liter)**

Constituent	Statewide Standard		SB-1	SB-2	SB-3	SB-4	Dup-2 (SB-2)	Dup-5 (SB4)	Trip Blank	Field Blank
	Protected	Non-Protected								
<b>RCRA Metals</b>										
Mercury	0.002	0.01	<b>0.00104</b>	NA	NA	<0.000200	NA	<0.000200	NA	<0.000200
Arsenic, Inorganic	0.01	0.05	<b>0.0231</b>	NA	NA	<b>0.0277</b>	NA	<b>0.0282</b>	NA	<0.00100
Cadmium	0.005	0.025	<b>0.00199</b>	NA	NA	<b>0.00350</b>	NA	<b>0.00354</b>	NA	<0.000500
Lead	0.015	0.075	<b>0.0687</b>	NA	NA	<b>0.0208</b>	NA	<b>0.0208</b>	NA	<0.00400
Barium	2	10	<b>0.517</b>	NA	NA	<b>2.36</b>	NA	<b>0.679</b>	NA	<0.0100
Chromium (total)	0.1	0.5	<0.0600	NA	NA	<b>0.0372</b>	NA	<b>0.0321</b>	NA	<0.0200
<b>Nitrates &amp; Ammonia</b>										
Ammonia	30	150	<b>5.30</b>	NA	NA	<b>1.93</b>	NA	<b>1.89</b>	NA	<0.200
Nitrate	10	56	<b>0.163</b>	NA	NA	<0.100	NA	<0.100	NA	<0.100
<b>Pesticides and Herbicide</b>										
4,4' - DDT	0.00051	0.010	<b>0.000246</b>	NA	NA	<0.0000320	NA	<0.0000320	NA	<0.0000320
Methoxychlor	0.04	0.2	<b>0.000258</b>	NA	NA	<0.0000320	NA	<0.0000320	NA	<0.0000360
<b>Polynuclear Aromatic Hydrocarbons (PAHs)</b>										
Acenaphthene	0.42	2.1	<b>0.536</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Acenaphthylene	0.21	1	<b>3.85</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Anthracene	2.1	10	<b>1.94</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Benzo[a]anthracene	0.00024	0.0048	<b>0.833</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Benzo[a]pyrene	0.0002	0.001	<b>0.724</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Benzo[b]fluoranthene	0.00024	0.0048	<b>0.461</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Benzo[g,h,i]perylene	0.021	0.1	<b>0.220</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Benzo[k]fluoranthene	0.0024	0.048	<b>0.168</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Chrysene	0.024	0.48	<b>0.782</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Dibenzo(a,h) anthracene	0.000024	0.00048	<b>0.612</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Fluoranthene	0.28	1.4	<b>1.70</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Fluorene	0.28	1.4	<b>2.21</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Indeno[1,2,3-cd]pyrene	0.00024	0.0048	<b>0.172</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Methylnaphthalene, 2	0.028	0.14	<b>0.403</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Naphthalene – RE1	0.1	0.7	<b>16.2</b>	<0.000172	<0.000139	<b>0.00253</b>	<0.000127	NA	NA	<0.000115
Phenanthrene	0.21	1	<b>5.75</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115
Pyrene	0.21	1	<b>2.46</b>	<0.000172	<0.000139	<0.0001	<0.000127	NA	NA	<0.000115

**NOTE:** **Bold** indicates concentration above laboratory reporting limits / **Shaded** indicates concentration above applicable Standard / NA: Not Analyzed / NC: Not Calculated. J = Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated.

#### **4.3 Risk Evaluations**

Subrule 567 IAC 137.10(7) specifies cumulative risk criteria that must be complied with to acquire a no further action certificate under the Iowa Land Recycling Program (LRP). Cumulative risk is the summation of cancer and noncancer risks, determined separately, based on exposure to multiple contaminants from the same medium and exposure of the same individual to contaminants in multiple media. Evaluation of cumulative risk is conducted using the cumulative risk calculator on the IDNR Contaminated Sites Section website. The cumulative risk calculator assesses risk to potentially exposed parties, based on three standard exposure scenarios, from multiple contaminants and multiple media (i.e., groundwater, soil, and air).

To evaluate compliance with the acceptable risk criteria, the cumulative concentrations of contaminants must meet standards limiting increased cancer and noncancer health risk. The cumulative risk criteria are as follows:

- Cumulative cancer risk shall not exceed 1 in 10,000.
- Noncancer health risk to the same target organ shall not exceed a cumulative Hazard Quotient of 1.

Determination of exposure point concentrations for the risk calculation can be accomplished using one of the following methods.

- The maximum value for each contaminant in each medium from multiple samples of each medium of concern.
- The 95% Upper Confidence Limit (95% UCL) of the mean contaminant concentration in each medium.

For the purposes of this evaluation, maximum values for each contaminant in each medium of concern were used to evaluate risk associated with potential exposure pathways. For soil, only the contaminants identified in Range 1 soils were used for the soil evaluation due to the increased exposure risks associated with shallow soils. This evaluation was conducted using site resident (residential) and site worker (non-residential) exposure scenarios. The site resident scenario is typically used when compliance with background or Statewide Standards is sought with no associated land use restrictions. Cumulative cancer risks  $\leq 1$  represent an acceptable risk and a sum value for each target organ must be  $\leq 1$  to be considered acceptable for noncancer health risk. The Cumulative Risk Calculator results are summarized in Appendix E.

#### **Range 1 Soil**

According to the Cumulative Risk Calculator, the cumulative cancer risk is 0.85 for site resident and 0.22 for a site worker. A cumulative cancer risk of  $\leq 1$  represents an acceptable risk. Therefore, the cumulative cancer risk for Range 1 soil is acceptable. The site worker non-cancer risks for each organ are  $<1$ , and therefore acceptable. The site resident non-cancer risks for the heart and blood were  $>1$  and therefore unacceptable.

#### **Groundwater**

The City of Council Bluffs has a groundwater ordinance (Chapter 4.33), which prevents the installation of private wells for groundwater consumption; therefore, the groundwater ingestion pathway is incomplete and was not included in the risk calculations. However, the City of Council Bluffs should consider possible vapor intrusion issues associated with the VOC, TEH, and PAH concentrations exceeding applicable standards and free phase

coal tar identified in soil boring SB-1 if redevelopment of the site was to include a commercial building.

## 5.0 FINDINGS AND CONCLUSIONS

The results of the Phase II investigations are provided in this document. The findings and conclusions are summarized below:

- Arsenic, benzo[b]fluoranthene, dibenzo[a,h]anthracene, and benzo[a]pyrene were detected above Statewide Standards in Range 1 (<2-feet bgs) soil. The calculated cancer risk for Range 1 soil for a site worker and site resident were acceptable. The calculated non-cancer risk for Range 1 soil was acceptable for a site worker but was not acceptable for a site resident. The site resident non-cancer risks for the heart and blood were >1 and therefore unacceptable.
- Several VOC, TEH, and PAH compounds were detected in Range 2 (>2-feet bgs) soils. Benzo[a]anthracene, benzo[a]pyrene, dibenzo[a,h]anthracene, benzene, and ethylbenzene were all detected above their applicable Statewide Standard.
- Several VOC, TEH, metals, and PAH compounds were detected above applicable Statewide or Tier 1 Standards in groundwater samples. Constituents detected above their applicable Standard include: TEH-diesel, TEH-motor oil, benzene, ethylbenzene, 1,2,4-trimethylbenzene, acenaphthene, acenaphthylene, benzo[a]anthracene, benzo[a]pyrene, benzo[b]fluoranthene, benzo[g,h,i]perylene, benzo[k]fluoranthene, chrysene, dibenzo[a,h]anthracene, fluoranthene, fluorene, indeno[1,2,3-cd]pyrene, methylnaphthalene, naphthalene, phenanthrene, pyrene, and Barium.
- Free Phase coal tar was observed during soil logging/screening and groundwater sampling from soil boring SB-1. The coal tar is suspected to be related to the former manufacturing gas plant located adjacent to the south of the Subject Property. Free phase coal tar has been observed throughout the area as identified in the Phase I ESA. The majority of the detections above Statewide Standards were from SB-1 where the free phase coal tar was observed.

## 6.0 RECOMMENDATIONS

Based on the data collected, it is the opinion of HR Green that the detected contaminants and free phase coal tar observed during this Phase II ESA represents a possible risk to the human health and the environment depending on the potential use of the property. The City of Council Bluffs has a groundwater ordinance (Chapter 4.33), which prevents the installation of private wells for groundwater consumption; therefore, the groundwater ingestion pathway is incomplete. However, the City of Council Bluffs should consider possible vapor intrusion issues if redevelopment of the site was to include a commercial building.

HR Green recommends that the current property owner and/or the City of Council Bluffs send a copy of this Phase II ESA to the IDNR Contaminated Sites Section for regulatory review based on presence of free phase coal tar identified in soil boring SB-1.

## **7.0 DATA VALIDATION AND USABILITY**

Validation of the data collected during Phase II assessment of the subject property is included below.

### **7.1 Representativeness**

All samples were collected in such a manner and at locations specified in the sampling plan to accurately reflect the constituent concentrations in the media from which they were taken at the time of sampling. Sample locations were biased to focus efforts on areas of the property with the greatest potential to be impacted by on-site and off-site activities.

Representativeness of the data was partially ensured by avoiding cross-contamination, adhering to standard sample handling and analytical procedures, and use of proper chain-of-custody documentation procedures.

Field duplicates were collected and evaluated to assure samples were representative of the sampling point. Field duplicate analysis is included in Section 7.5.

### **7.2 Comparability**

In order that one set of data may be compared with another, all analyses were performed by accepted EPA or state methods, and all analytical results were reported in similar concentration units and format.

### **7.3 Completeness**

In order for a set of data to be used with confidence to make a decision, the data must be complete. The sampling design included the collection of samples from the area of the property most likely to have been impacted by on-site and off-site activities. All proposed soil and groundwater samples were collected according to the approved work plan so the data set is complete.

### **7.4 Sensitivity**

Detection and quantification limits for sample data must be below the Statewide Standard action levels specified in IAC 137. The laboratory MDLs for all of the constituents were below the Statewide Standards. The IDNR recognizes the Statewide Standard limits for these constituents cannot be achieved by routine commercial laboratory analysis and chooses to use the laboratory reporting limit for the action limit for project decisions.

### **7.5 Precision**

Precision describes the variability of a measurement system. Precision was assessed through the collection and evaluation of field quality control samples. Precision is typically an estimate by means of duplicate measurements and is expressed in terms of relative percent difference (RPD). The goal for precision of field duplicate results is  $\pm 50$  percent RPD for soil samples and  $\pm 35$  percent RPD for water samples.

The relative percent difference (RPD) between the primary and corresponding duplicate sample will be calculated using the below formula.

$$RPD = \left[ \frac{2 \times (C_1 - C_2)}{(C_1 + C_2)} \right] \times 100$$

where:  $RPD$  = Relative percent difference

$C_1$  = Larger of the two observed measurement values

$C_2$  = Smaller of the two observed measurement values

Soil duplicate samples were collected at borings SB-2 0-2' (DUP-1), SB-2 2-4' (DUP-3), SB-4 0-2' (DUP-4), SB4 12-14' (DUP-6), and SB-1 0-2' (DUP-7). The RPD calculations are shown in Table 5.

**Table 5**  
**Relative Percent Difference – Soil (mg/kg)**

Location	Contaminant	Sample Concentration	Duplicate Concentration	RPD
SB-4 (0-2')	<b>Pesticides and Herbicides</b>			
	No Detections			
SB-4 (12-14')	<b>Volatile Organic Compounds</b>			
	No Detections			
SB-1 (0-2')	<b>RCRA Metals</b>			
	Arsenic	15.9	17.2	7.85
	Barium	90.9	292	105.04
	Mercury	0.0887	0.0660	29.35
	Lead	63.8	39.6	46.81
	Chromium	ND	18.1	NC
SB-2 (0-2')	<b>Polynuclear Aromatic Hydrocarbons</b>			
	Benzo[a]anthracene	0.0235	0.0323	31.54
	Benzo[a]pyrene	0.0276	0.0357	25.59
	Benzo[b]fluoranthene	0.0350	0.0480	31.33
	Benzo[g,h,i]perylene	0.0223	0.0295	27.80
	Benzo[k]fluoranthene	ND	0.0124	NC
	Chrysene	0.0323	0.0400	21.30
	Fluoranthene	0.0296	0.0381	25.11
	Indeno[1,2,3-cd]pyrene	0.0161	0.0210	26.42
	Methylnaphthalene, 2	0.0284	0.0115	84.71
	Naphthalene – RE1	0.0123	ND	NC
	Phenanthrene	0.0453	0.0438	3.37
	Pyrene	0.0336	0.0453	29.66
SB-2 (0-2')	<b>Nitrate and Ammonia</b>			
	No Detections			

NOTE: ND: Not detected above laboratory reporting limits / NC: Not calculated

Groundwater duplicate samples were collected at borings SB-2 (DUP-2) and SB-4 (DUP-5). The RPD calculations are shown in Table 6.

**Table 6**  
**Relative Percent Difference – Groundwater (mg/L)**

Location	Analyte	Sample Concentration	Duplicate Concentration	RPD
<b>Volatile Organic Compounds</b>				
SB-2	Acetone	0.00454 J	0.00301 J	40.53
	Cis- 1,2-Dichloroethene	0.000160 J	ND	NC
	Methylene Chloride (Dichloromethane)	0.000190 J	0.000310 J	48
	Toluene	0.000190 J	0.000250 J	27.27
	Xylene, Mixture	0.000160 J	0.000200 J	22.22
<b>Total Extractable Hydrocarbons</b>				
	Diesel	ND	0.163	NC
	Gasoline	0.115	ND	NC
	Motor Oil	0.0699	0.0842	18.56
<b>Polynuclear Aromatic Hydrocarbons</b>				
SB-4	No Detections			
	<b>RCRA Metals</b>			
	Arsenic, Inorganic	0.0277	0.0282	1.79
	Cadmium	0.00350	0.00354	1.14
	Lead and Compounds	0.0208	0.0208	0.00
	Barium	2.36	0.679	110.63
<b>Pesticides and Herbicides</b>				
	No Detections			
	<b>Ammonia and Nitrates</b>			
	Ammonia	1.93	1.89	2.09

NOTE: ND: Not detected above laboratory reporting limits / NC: Not calculated

The soil sample RPDs for barium and 2-Methylnaphthalene and the groundwater RPDs for acetone and barium were outside the precision goals for the project but would not alter the recommendations in this report. With respect to these RPD values being outside the respective goals for soils and groundwater, samples are obtained as a 'grab', rather than a 'composite' sample. Therefore, grab samples are more heterogeneous (i.e. more variable) when compared to the homogenous composite sample. Best efforts are made to minimize the heterogeneous nature of soil samples while in the field; however, these samples are still significantly heterogeneous. Groundwater samples are obtained using a disposable bailer or through low-flow pumps, and are directly sampled, rather than being mixed prior to sampling. Therefore, different levels of detected constituents may enter the groundwater between bails or over a period of time while using a pump.

Methods used in order to increase the ability to meet the goals with respect to the RPD in soil samples will be to:

- Take the duplicate in the immediate area of the original sample,
- collect the duplicate sample at the same time as the original sample, and
- avoid taking samples from areas of sand seams or other non-homogenous soils, whenever possible based on recovery.

## 7.6 Accuracy

Blanks are used to evaluate the purity of sample containers, chemical preservatives, and sampling equipment. Acetone, 2,2-Dichloropropane, methylene chloride, and toluene were detected in the field blank associated and bromomethane, chloroethane, and methylene chloride were detected in the trip blank. However, these common lab contaminants were detected at concentrations were detected at levels less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). Concentrations within this range are estimated and the constituents detected did not exceed the Statewide Standard in the blanks or in any of the samples collected from the properties; therefore, detection of the constituents in the blanks does not change the recommendations in this report.

All sampling and analytical activities were conducted in accordance with EPA approved methods or industry standard practices.

## 8.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

We declare, to the best of our professional knowledge and belief, we meet the definition of *Environmental Professional* as defined in §312.10 of 40 CFR 312 and we have the specific qualifications based on education, training, and experience to assess a *property* of the nature, history, and setting of the *subject site*. We have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signatures of the environmental professionals responsible for this report:

---

Michael Goalen, Project Manager, Quality Control and Assurance

---

Adam Fisher, Environmental Technician

**APPENDIX A**

**QUALIFICATIONS**

## **QUALIFICATIONS OF ENVIRONMENTAL PROFESSIONALS**

### **COMPANY QUALIFICATIONS**

HR Green Inc is a multi-disciplined consulting engineering firm providing services in the civil, environmental, structural, mechanical and electrical engineering disciplines. The firm, founded in 1913, serves Midwest cities, utilities, industries, and various state and federal agencies. The home office is located in Cedar Rapids, Iowa, with branch offices in Des Moines and Sioux City, Iowa; Saint Paul, Minnesota; St. Louis, Missouri; Sioux Falls, South Dakota; Houston, Texas; York, Pennsylvania; and in McHenry, New Lenox, Yorkville, Chicago and Moline, Illinois. The firm currently employs approximately 400 architects, engineers, planners, scientists, surveyors, technicians, and support staff.

HR Green Inc has completed environmental site assessments and property transfer evaluations for a variety of public and private clients in Iowa, Minnesota, Missouri, South Dakota, and Wisconsin. The firm is experienced in multiple phases of environmental services, including site assessments, contaminant release investigations, and remediation programs. Additionally, hazardous materials management, permit compliance, solid waste management, storm water management, and underground storage tank system management services are provided by the firm.

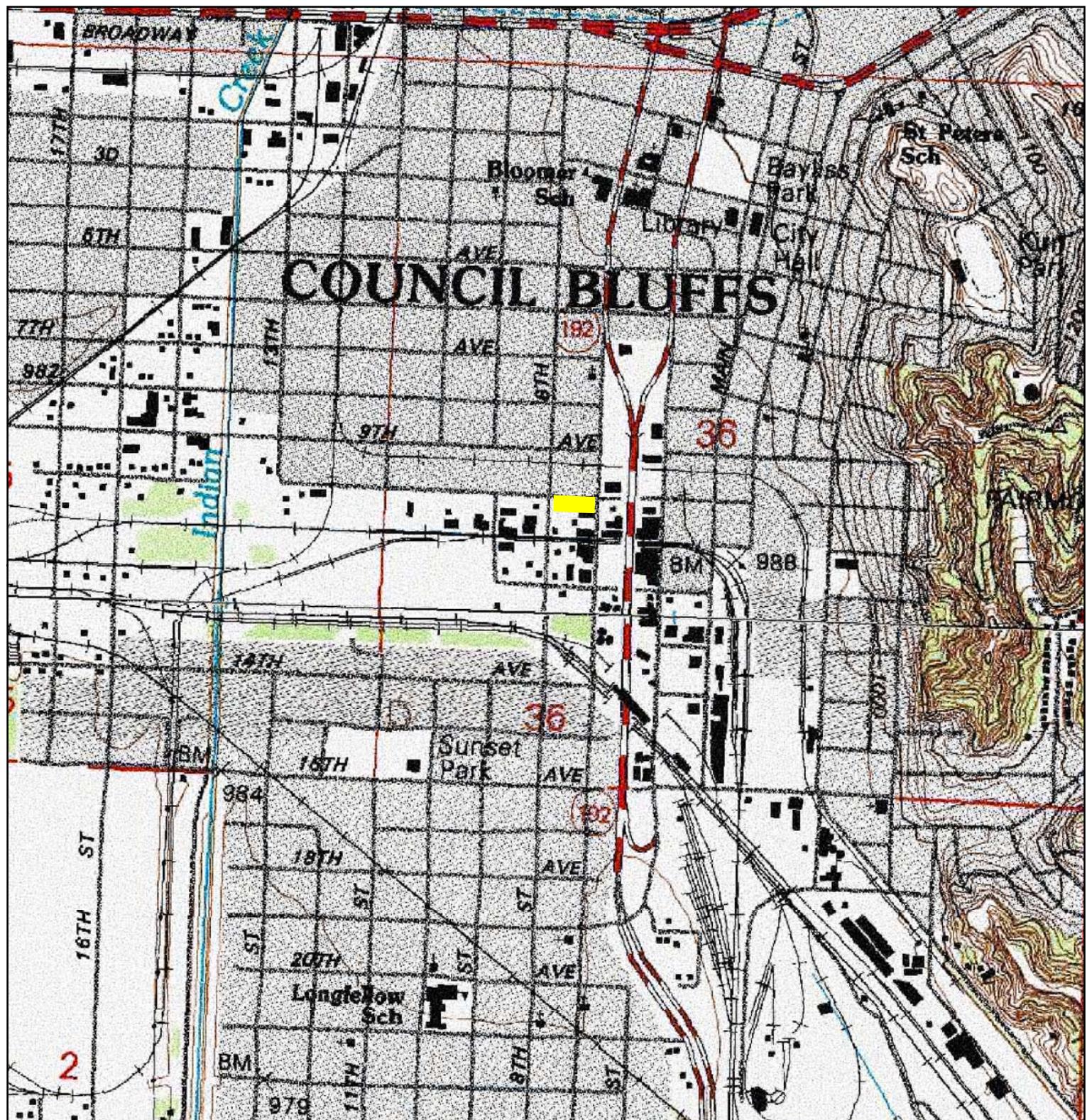
### **QUALIFICATIONS OF INDIVIDUALS PREPARING THIS REPORT**

Mr. Michael Goalen is an environmental scientist with eleven years of experience in the environmental consulting industry and has experience with a wide variety of environmental issues including Phase I and II Environmental Site Assessments in accordance with the ASTM standard, Brownfield Site Assessments, remediation, and risk based assessments of hazardous waste sites. Mr. Goalen is 40-hour HAZWOPER certified.

Mr. Adam Fisher is an Environmental Specialist with experience on Phase I and Phase II environmental site assessments and National Environmental Policy Act (NEPA) projects. He has also worked on multiple Brownfield redevelopment projects. Mr. Fisher is 40-hour HAZWOPER certified.

**APPENDIX B**

**FIGURES**



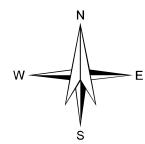
#### Legend

Property

### FIGURE 1 SITE VICINITY MAP

**Phase I=ESA**  
1000 South 7th Street  
&  
PIN 754436333003

Council Bluffs, Iowa



0 500 1,000  
Feet

1 inch = 1,000 feet



#### Legend

- Property
- Sample Location

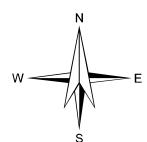
#### RECs

1. Former feed and milling company
2. Former railroad siding
3. Former railroad R.O.W. and tracks
4. Former manufactured gas plant
5. Former Co-op/Petroleum Company (LUST #7LTM14)

## FIGURE 2 Sample Location Map

**Phase II ESA**  
**1000 South 7th Street**  
**&**  
**PIN 754436333003**

**Council Bluffs, Iowa**



0      50      100  
Feet

1 inch = 100 feet

**APPENDIX C**

**LABORATORY REPORTS/CHAIN OF CUSTODY DOCUMENTATION**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Cedar Falls

704 Enterprise Drive

Cedar Falls, IA 50613

Tel: 800-750-2401

TestAmerica Job ID: CVC1446

Client Project/Site: [none]

Client Project Description: 1000 S. 7th Street - Council Bluffs, IA

For:

HOWARD R. GREEN CO. - CEDAR RAPIDS <

8710 Earhart Lane SW

Cedar Rapids, IA 52404

Attn: Mike Goalen



Authorized for release by:

4/11/2012 9:58:26 AM

Derrick Klinkenberg

Organics Manager

[derrick.klinkenberg@testamericainc.com](mailto:derrick.klinkenberg@testamericainc.com)

### LINKS

Review your project  
results through

**TotalAccess**

Have a Question?

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The  
Expert

Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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## Sample Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
CVC1446-01	DUP-4	Soil	03/21/12 00:00	03/23/12 09:24
CVC1446-02	DUP-6	Soil	03/21/12 00:00	03/23/12 09:24
CVC1446-03	SB-2 0-2'	Soil	03/21/12 13:30	03/23/12 09:24
CVC1446-04	SB-2 2-4'	Soil	03/21/12 13:35	03/23/12 09:24
CVC1446-05	SB-2	Ground Water	03/21/12 13:37	03/23/12 09:24
CVC1446-06	DUP-1	Soil	03/21/12 00:00	03/23/12 09:24
CVC1446-07	DUP-3	Soil	03/21/12 00:00	03/23/12 09:24
CVC1446-08	DUP-2	Ground Water	03/21/12 00:00	03/23/12 09:24
CVC1446-09	Field Blank	Water	03/21/12 00:00	03/23/12 09:24
CVC1446-10	Trip Blank	Water	03/21/12 00:00	03/23/12 09:24
CVC1446-11	SB-3 0-2'	Soil	03/21/12 17:05	03/23/12 09:24
CVC1446-12	SB-3	Ground Water	03/21/12 17:10	03/23/12 09:24
CVC1446-13	SB-1 0-2'	Soil	03/21/12 15:58	03/23/12 09:24
CVC1446-14	SB-1 14-16'	Soil	03/21/12 16:06	03/23/12 09:24
CVC1446-15	SB-1	Ground Water	03/21/12 16:04	03/23/12 09:24
CVC1446-16	DUP-7	Soil	03/21/12 00:00	03/23/12 09:24
CVC1446-17	SB-4 0-2'	Soil	03/21/12 14:45	03/23/12 09:24
CVC1446-18	SB-4 12-14'	Soil	03/21/12 14:55	03/23/12 09:24
CVC1446-19	SB-4	Ground Water	03/21/12 14:43	03/23/12 09:24
CVC1446-20	DUP-5	Ground Water	03/21/12 00:00	03/23/12 09:24

## Detection Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Client Sample ID: DUP-4

### Lab Sample ID: CVC1446-01

No Detections

### Client Sample ID: DUP-6

### Lab Sample ID: CVC1446-02

No Detections

### Client Sample ID: SB-2 0-2'

### Lab Sample ID: CVC1446-03

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo (a) anthracene	0.0235		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (b) fluoranthene	0.0350		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (a) pyrene	0.0276		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (g,h,i) perylene	0.0223		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Chrysene	0.0323		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Fluoranthene	0.0296		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Indeno (1,2,3-cd) pyrene	0.0161		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
2-Methylnaphthalene	0.0284		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Naphthalene	0.0123		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Phenanthrene	0.0453		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total
Pyrene	0.0336		0.0117		mg/kg dry	1.00	⊗	SW 8270D	Total

### Client Sample ID: SB-2 2-4'

### Lab Sample ID: CVC1446-04

No Detections

### Client Sample ID: SB-2

### Lab Sample ID: CVC1446-05

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.54	J	10.0	1.79	ug/L	1.00		SW 8260B	Total
cis-1,2-Dichloroethene	0.160	J	1.00	0.130	ug/L	1.00		SW 8260B	Total
Methylene Chloride	0.190	J	5.00	0.170	ug/L	1.00		SW 8260B	Total
Toluene	0.190	J	1.00	0.150	ug/L	1.00		SW 8260B	Total
Xylenes, total	0.160	J	3.00	0.130	ug/L	1.00		SW 8260B	Total
pH	>2	P	2.00		units	1.00		SW 9041A	Total
Total Extractable Hydrocarbons	184		97.0		ug/L	1.00		OA-2 - 8015B	Total
Gasoline	115	J MDL Q	97.0		ug/L	1.00		OA-2 - 8015B	Total
Motor Oil	69.9	MDL Q J L1	59.7		ug/L	1.00		OA-2 - 8015B	Total

### Client Sample ID: DUP-1

### Lab Sample ID: CVC1446-06

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo (a) anthracene	0.0323		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (b) fluoranthene	0.0480		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (k) fluoranthene	0.0124		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (a) pyrene	0.0357		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (g,h,i) perylene	0.0295		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Chrysene	0.0400		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Fluoranthene	0.0381		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Indeno (1,2,3-cd) pyrene	0.0210		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
2-Methylnaphthalene	0.0115		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Phenanthrene	0.0438		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total
Pyrene	0.0453		0.0115		mg/kg dry	1.00	⊗	SW 8270D	Total

# Detection Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: DUP-3

## Lab Sample ID: CVC1446-07

No Detections

## Client Sample ID: DUP-2

## Lab Sample ID: CVC1446-08

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	3.01	J	10.0	1.79	ug/L	1.00		SW 8260B	Total
Methylene Chloride	0.310	J	5.00	0.170	ug/L	1.00		SW 8260B	Total
Toluene	0.250	J	1.00	0.150	ug/L	1.00		SW 8260B	Total
Xylenes, total	0.200	J	3.00	0.130	ug/L	1.00		SW 8260B	Total
pH	>2	P	2.00		units	1.00		SW 9041A	Total
Total Extractable Hydrocarbons	247		135		ug/L	1.00		OA-2 - 8015B	Total
Gasoline	163	J MDL Q	135		ug/L	1.00		OA-2 - 8015B	Total
Motor Oil	84.2	J L1 MDL Q	83.0		ug/L	1.00		OA-2 - 8015B	Total

## Client Sample ID: Field Blank

## Lab Sample ID: CVC1446-09

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	4.78	J	10.0	1.79	ug/L	1.00		SW 8260B	Total
2,2-Dichloropropane	0.180	J	4.00	0.180	ug/L	1.00		SW 8260B	Total
Methylene Chloride	0.720	J	5.00	0.170	ug/L	1.00		SW 8260B	Total
Toluene	0.160	J	1.00	0.150	ug/L	1.00		SW 8260B	Total

## Client Sample ID: Trip Blank

## Lab Sample ID: CVC1446-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Bromomethane	0.220	J	4.00	0.220	ug/L	1.00		SW 8260B	Total
Chloroethane	0.160	J B	4.00	0.150	ug/L	1.00		SW 8260B	Total
Methylene Chloride	0.250	J	5.00	0.170	ug/L	1.00		SW 8260B	Total

## Client Sample ID: SB-3 0-2'

## Lab Sample ID: CVC1446-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	0.0463		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (a) anthracene	0.116		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (b) fluoranthene	0.160		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (k) fluoranthene	0.0696		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (a) pyrene	0.156		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Benzo (g,h,i) perylene	0.105		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Chrysene	0.132		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Dibenzo (a,h) anthracene	0.0292		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Fluoranthene	0.0879		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Indeno (1,2,3-cd) pyrene	0.0834		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
2-Methylnaphthalene	0.0183		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Naphthalene	0.0158		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Phenanthrene	0.0371		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Pyrene	0.132		0.0113		mg/kg dry	1.00	⊗	SW 8270D	Total
Total Extractable Hydrocarbons	22.0		12.0		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	22.0		12.0		mg/kg	1.00		OA-2 - 8015B	Total

## Client Sample ID: SB-3

## Lab Sample ID: CVC1446-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	2.04	J	10.0	1.79	ug/L	1.00		SW 8260B	Total
Benzene	0.110	J	0.500	0.110	ug/L	1.00		SW 8260B	Total
Methylene Chloride	0.780	J	5.00	0.170	ug/L	1.00		SW 8260B	Total

# Detection Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: SB-3 (Continued)

## Lab Sample ID: CVC1446-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.210	J	1.00	0.150	ug/L	1.00		SW 8260B	Total
pH	>2	P	2.00		units	1.00		SW 9041A	Total

## Client Sample ID: SB-1 0-2'

## Lab Sample ID: CVC1446-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acenaphthylene	2.38	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (a) anthracene	3.05	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (b) fluoranthene	3.94	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (k) fluoranthene	1.81	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (a) pyrene	3.00	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (g,h,i) perylene	2.86	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Chrysene	3.56	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Dibenzo (a,h) anthracene	0.802	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Fluoranthene	1.98	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Indeno (1,2,3-cd) pyrene	2.15	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Phenanthrene	0.764	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
Pyrene	4.00	RL1	0.730		mg/kg dry	10.0	⊗	SW 8270D	Total
4,4'-DDD	9.28		7.90		ug/kg dry	1.00	⊗	SW 8081A	Total
Mercury	0.0887		0.0247		mg/kg dry	1.00	⊗	SW 7471B	Total
Arsenic	16.0		2.47		mg/kg dry	2.00	⊗	SW 7010	Total
Barium	90.9	M1	6.17		mg/kg dry	10.0	⊗	SW 6010C	Total
Lead	63.8		61.7		mg/kg dry	10.0	⊗	SW 6010C	Total

## Client Sample ID: SB-1 14-16'

## Lab Sample ID: CVC1446-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	3310		620		ug/kg dry	100	⊗	SW 8260B	Total
n-Butylbenzene	1030		620		ug/kg dry	100	⊗	SW 8260B	Total
sec-Butylbenzene	18300		620		ug/kg dry	100	⊗	SW 8260B	Total
Ethylbenzene	19400		620		ug/kg dry	100	⊗	SW 8260B	Total
Isopropylbenzene	779		620		ug/kg dry	100	⊗	SW 8260B	Total
p-Isopropyltoluene	1270		620		ug/kg dry	100	⊗	SW 8260B	Total
n-Propylbenzene	992		620		ug/kg dry	100	⊗	SW 8260B	Total
1,2,4-Trimethylbenzene	20700		620		ug/kg dry	100	⊗	SW 8260B	Total
1,3,5-Trimethylbenzene	5980		620		ug/kg dry	100	⊗	SW 8260B	Total
Xylenes, total	23700		1860		ug/kg dry	100	⊗	SW 8260B	Total
Naphthalene - RE1	494000		31000		ug/kg dry	1000	⊗	SW 8260B	Total
Acenaphthene	5.54	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (b) fluoranthene	6.68	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (k) fluoranthene	2.64	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (g,h,i) perylene	3.22	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
Dibenzo (a,h) anthracene	0.974	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
Indeno (1,2,3-cd) pyrene	2.69	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
2-Methylnaphthalene	4.85	RL1	0.208		mg/kg dry	10.0	⊗	SW 8270D	Total
Acenaphthylene - RE1	45.2		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Anthracene - RE1	25.7		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Benzo (a) anthracene - RE1	13.1		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Benzo (a) pyrene - RE1	10.6		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Chrysene - RE1	11.5		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Fluoranthene - RE1	19.0		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Fluorene - RE1	28.4		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Naphthalene - RE1	215		20.8		mg/kg dry	1000	⊗	SW 8270D	Total
Phenanthrene - RE1	78.4		2.08		mg/kg dry	100	⊗	SW 8270D	Total

# Detection Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: SB-1 14-16' (Continued)

## Lab Sample ID: CVC1446-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Pyrene - RE1	33.6		2.08		mg/kg dry	100	⊗	SW 8270D	Total
Total Extractable Hydrocarbons	1780		19.2		mg/kg	1.00		OA-2 - 8015B	Total
Diesel	835		19.2		mg/kg	1.00		OA-2 - 8015B	Total
Gasoline	598 Q		19.2		mg/kg	1.00		OA-2 - 8015B	Total
Motor Oil	346 Q		19.2		mg/kg	1.00		OA-2 - 8015B	Total

## Client Sample ID: SB-1

## Lab Sample ID: CVC1446-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzene	1060		2.50	0.550	ug/L	5.00		SW 8260B	Total
n-Butylbenzene	7.35		5.00	1.85	ug/L	5.00		SW 8260B	Total
Chloroform	2.00 J		5.00	1.40	ug/L	5.00		SW 8260B	Total
Ethylbenzene	1100		5.00	1.05	ug/L	5.00		SW 8260B	Total
Isopropylbenzene	18.9		5.00	0.950	ug/L	5.00		SW 8260B	Total
p-Isopropyltoluene	12.6		5.00	0.700	ug/L	5.00		SW 8260B	Total
n-Propylbenzene	16.9		5.00	0.500	ug/L	5.00		SW 8260B	Total
Toluene	58.4		5.00	0.750	ug/L	5.00		SW 8260B	Total
1,2,4-Trimethylbenzene	407		5.00	1.00	ug/L	5.00		SW 8260B	Total
1,3,5-Trimethylbenzene	109		5.00	1.00	ug/L	5.00		SW 8260B	Total
Xylenes, total	1180		15.0	0.650	ug/L	5.00		SW 8260B	Total
Naphthalene - RE1	14300 B		500	37.0	ug/L	100		SW 8260B	Total
pH	>2 P		2.00		units	1.00		SW 9041A	Total
Acenaphthene	536		8.43		ug/L	10.0		SW 8270D	Total
Acenaphthylene	3850		84.3		ug/L	100		SW 8270D	Total
Anthracene	1940		84.3		ug/L	100		SW 8270D	Total
Benzo (a) anthracene	833		84.3		ug/L	100		SW 8270D	Total
Benzo (b) fluoranthene	461		84.3		ug/L	10.0		SW 8270D	Total
Benzo (k) fluoranthene	168		84.3		ug/L	10.0		SW 8270D	Total
Benzo (a) pyrene	724		8.43		ug/L	10.0		SW 8270D	Total
Benzo (g,h,i) perylene	220		8.43		ug/L	10.0		SW 8270D	Total
Chrysene	782		8.43		ug/L	10.0		SW 8270D	Total
Dibenzo (a,h) anthracene	61.2		8.43		ug/L	10.0		SW 8270D	Total
Fluoranthene	1700		84.3		ug/L	100		SW 8270D	Total
Fluorene	2210		84.3		ug/L	100		SW 8270D	Total
Indeno (1,2,3-cd) pyrene	172		8.43		ug/L	10.0		SW 8270D	Total
2-Methylnaphthalene	403		8.43		ug/L	10.0		SW 8270D	Total
Phenanthrene	5750		84.3		ug/L	100		SW 8270D	Total
Pyrene	2460		84.3		ug/L	100		SW 8270D	Total
Naphthalene - RE1	16200		843		ug/L	1000		SW 8270D	Total
Total Extractable Hydrocarbons	102000		1850		ug/L	1.00		OA-2 - 8015B	Total
Diesel	63400 Q		1850		ug/L	1.00		OA-2 - 8015B	Total
Gasoline	9040 Q		1850		ug/L	1.00		OA-2 - 8015B	Total
Motor Oil	29200 L1 Q		1850		ug/L	1.00		OA-2 - 8015B	Total
4,4'-DDT	0.246 R10		0.0410		ug/L	1.00		SW 8081A	Total
Methoxychlor	0.258 R10		0.0410		ug/L	1.00		SW 8081A	Total
Mercury	0.00104		0.000200		mg/L	1.00		SW 7470A	Total
Arsenic	0.0231 pH>2		0.00500		mg/L	5.00		SW 7010	Total
Cadmium	0.00199 pH>2		0.000500		mg/L	1.00		SW 7010	Total
Lead	0.0687 pH>2		0.00800		mg/L	2.00		SW 7010	Total
Barium	0.517 pH>2		0.0300		mg/L	3.00		SW 6010C	Total
Ammonia as N	5.30 pH>2		0.200		mg/L	1.00		EPA 350.1	Total
Nitrate as N	0.163		0.100		mg/L	1.00		SM 4500 NO3 E/00	Total

## Detection Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Client Sample ID: DUP-7

### Lab Sample ID: CVC1446-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.0660		0.0245		mg/kg dry	1.00	⊗	SW 7471B	Total
Arsenic	17.2		2.45		mg/kg dry	2.00	⊗	SW 7010	Total
Barium	292		1.84		mg/kg dry	3.00	⊗	SW 6010C	Total
Chromium	18.1		3.68		mg/kg dry	3.00	⊗	SW 6010C	Total
Lead	39.6		18.4		mg/kg dry	3.00	⊗	SW 6010C	Total

### Client Sample ID: SB-4 0-2'

### Lab Sample ID: CVC1446-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo (a) anthracene	0.660	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (b) fluoranthene	0.971	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (k) fluoranthene	0.415	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (a) pyrene	0.998	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Benzo (g,h,i) perylene	0.669	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Chrysene	0.779	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Fluoranthene	0.556	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Indeno (1,2,3-cd) pyrene	0.509	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Pyrene	0.893	RL1	0.355		mg/kg dry	10.0	⊗	SW 8270D	Total
Mercury	0.208		0.0241		mg/kg dry	1.00	⊗	SW 7471B	Total
Arsenic	21.0		2.41		mg/kg dry	2.00	⊗	SW 7010	Total
Barium	205		0.602		mg/kg dry	1.00	⊗	SW 6010C	Total
Cadmium	2.15		1.20		mg/kg dry	1.00	⊗	SW 6010C	Total
Chromium	15.9		1.20		mg/kg dry	1.00	⊗	SW 6010C	Total
Lead	305		6.02		mg/kg dry	1.00	⊗	SW 6010C	Total
Silver	1.64		1.20		mg/kg dry	1.00	⊗	SW 6010C	Total

### Client Sample ID: SB-4 12-14'

### Lab Sample ID: CVC1446-18

No Detections

### Client Sample ID: SB-4

### Lab Sample ID: CVC1446-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Toluene	0.260	J	1.00	0.150	ug/L	1.00		SW 8260B	Total
Xylenes, total	0.210	J	3.00	0.130	ug/L	1.00		SW 8260B	Total
Naphthalene	2.53		0.100		ug/L	1.00		SW 8270D	Total
Arsenic	0.0277		0.00100		mg/L	1.00		SW 7010	Total
Cadmium	0.00350		0.00200		mg/L	4.00		SW 7010	Total
Lead	0.0208		0.00400		mg/L	1.00		SW 7010	Total
Barium	2.36		0.0300		mg/L	3.00		SW 6010C	Total
Chromium	0.0372		0.0200		mg/L	1.00		SW 6010C	Total
Ammonia as N	1.93		0.200		mg/L	1.00		EPA 350.1	Total

### Client Sample ID: DUP-5

### Lab Sample ID: CVC1446-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	0.0282		0.00100		mg/L	1.00		SW 7010	Total
Cadmium	0.00354		0.00100		mg/L	2.00		SW 7010	Total
Lead	0.0208		0.00400		mg/L	1.00		SW 7010	Total
Barium	0.679		0.0100		mg/L	1.00		SW 6010C	Total
Chromium	0.0321		0.0200		mg/L	1.00		SW 6010C	Total
Ammonia as N	1.89		0.200		mg/L	1.00		EPA 350.1	Total

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-4**

**Lab Sample ID: CVC1446-01**

Date Collected: 03/21/12 00:00

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 83.9

**Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
alpha-BHC	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
beta-BHC	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
delta-BHC	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
gamma-BHC (Lindane)	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Chlordane	<191		191		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Dieldrin	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
4,4'-DDD	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
4,4'-DDE	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
4,4'-DDT	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Endosulfan I	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Endosulfan II	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Endosulfan sulfate	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Endrin	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Endrin aldehyde	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Heptachlor	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Heptachlor epoxide	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Methoxychlor	<7.62		7.62		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
Toxaphene	<191		191		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:23	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>			<b>Limits</b>				
Decachlorobiphenyl	53				45 - 145				
Tetrachloro-meta-xylene	39	ZX			55 - 105				
							<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
							03/26/12 09:25	03/27/12 12:23	1.00
							03/26/12 09:25	03/27/12 12:23	1.00

**Method: SM 2540 G - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	83.9		0.1		%	⊗	03/23/12 16:24	03/23/12 16:24	1.00

**Method: 8151A D Dry mg/Kg - Herbicides (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.38		0.38		mg/Kg dry	⊗	04/02/12 20:35	04/04/12 07:32	10
Silvex (2,4,5-TP)	<0.38		0.38		mg/Kg dry	⊗	04/02/12 20:35	04/04/12 07:32	10

**Method: 8151A D Dry ug/Kg - Herbicides (GC)**

Surrogate	%Recovery	Qualifier	Limits				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCAA	60		32 - 122				04/02/12 20:35	04/04/12 07:32	10

**Method: Moisture % - Percent Moisture**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	16		0.10		%	⊗	03/29/12 13:00	03/29/12 13:00	1
Percent Solids	84		0.10		%	⊗	03/29/12 13:00	03/29/12 13:00	1

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: DUP-6**

**Lab Sample ID: CVC1446-02**

Date Collected: 03/21/12 00:00

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 74.2

**Method: SW 8260B - Volatile Organic Compounds**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<6740		6740		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Benzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Bromobenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Bromoform	<1350		1350		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Bromomethane	<2690		2690		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
2-Butanone (MEK)	<6740		6740		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
n-Butylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
sec-Butylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
tert-Butylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Carbon disulfide	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Carbon Tetrachloride	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Chlorobenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Chlorodibromomethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Chloroethane	<2690		2690		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Chloroform	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Chloromethane	<2690		2690		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
2-Chlorotoluene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
4-Chlorotoluene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2-Dibromo-3-chloropropane	<6740		6740		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2-Dibromoethane (EDB)	<6740		6740		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Dibromomethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2-Dichlorobenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,3-Dichlorobenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,4-Dichlorobenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Dichlorodifluoromethane	<2020		2020		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1-Dichloroethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2-Dichloroethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1-Dichloroethene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
cis-1,2-Dichloroethene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
trans-1,2-Dichloroethene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2-Dichloropropane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,3-Dichloropropane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
2,2-Dichloropropane	<2690		2690		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1-Dichloropropene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
cis-1,3-Dichloropropene	<674 L		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
trans-1,3-Dichloropropene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Ethylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Hexachlorobutadiene	<3370		3370		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Hexane	<3370		3370		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Isopropylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
p-Isopropyltoluene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Methylene Chloride	<6740		6740		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Methyl tert-Butyl Ether	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Naphthalene	<3370		3370		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
n-Propylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Styrene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1,1,2-Tetrachloroethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1,2,2-Tetrachloroethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Tetrachloroethene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-6**  
**Date Collected: 03/21/12 00:00**  
**Date Received: 03/23/12 09:24**

**Lab Sample ID: CVC1446-02**  
**Matrix: Soil**  
**Percent Solids: 74.2**

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2,3-Trichlorobenzene	<3370		3370		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2,4-Trichlorobenzene	<3370		3370		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1,1-Trichloroethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,1,2-Trichloroethane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Trichloroethene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Trichlorofluoromethane	<2690		2690		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2,3-Trichloropropane	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,2,4-Trimethylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
1,3,5-Trimethylbenzene	<674		674		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Vinyl chloride	<2020		2020		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Xylenes, total	<2020		2020		ug/kg dry	⊗	03/27/12 00:00	03/27/12 11:32	100
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	110		75 - 125				03/27/12 00:00	03/27/12 11:32	100
Toluene-d8	97		80 - 120				03/27/12 00:00	03/27/12 11:32	100
4-Bromofluorobenzene	108		80 - 120				03/27/12 00:00	03/27/12 11:32	100

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	74.2		0.1		%		03/23/12 16:22	03/23/12 16:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-2 0-2'**

**Lab Sample ID: CVC1446-03**

Date Collected: 03/21/12 13:30  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 85.3

**Method: SW 8270D - PAH Compounds by SIM GCMS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0117		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
Acenaphthylene	<0.0117		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
Anthracene	<0.0117		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Benzo (a) anthracene</b>	<b>0.0235</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Benzo (b) fluoranthene</b>	<b>0.0350</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
Benzo (k) fluoranthene	<0.0117		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Benzo (a) pyrene</b>	<b>0.0276</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Benzo (g,h,i) perylene</b>	<b>0.0223</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Chrysene</b>	<b>0.0323</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
Dibenzo (a,h) anthracene	<0.0117		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Fluoranthene</b>	<b>0.0296</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
Fluorene	<0.0117		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Indeno (1,2,3-cd) pyrene</b>	<b>0.0161</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>2-Methylnaphthalene</b>	<b>0.0284</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Naphthalene</b>	<b>0.0123</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Phenanthrene</b>	<b>0.0453</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Pyrene</b>	<b>0.0336</b>		0.0117		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:12	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	35			25 - 105			03/23/12 13:07	03/28/12 00:12	1.00
Nitrobenzene-d5	36			20 - 105			03/23/12 13:07	03/28/12 00:12	1.00
Terphenyl-d14	39			30 - 125			03/23/12 13:07	03/28/12 00:12	1.00

**Method: SM 2540 G - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>% Solids</b>	<b>85.3</b>		0.1		%	⊗	03/23/12 16:22	03/23/12 16:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-2 2-4'**

**Lab Sample ID: CVC1446-04**

Date Collected: 03/21/12 13:35  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 79.3

**Method: SW 8260B - Volatile Organic Compounds**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<5360		5360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Benzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Bromobenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Bromoform	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Bromochloromethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Bromodichloromethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Bromoform	<1070		1070		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Bromomethane	<2140		2140		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
2-Butanone (MEK)	<5360		5360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
n-Butylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
sec-Butylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
tert-Butylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Carbon disulfide	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Carbon Tetrachloride	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Chlorobenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Chlorodibromomethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Chloroethane	<2140		2140		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Chloroform	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Chloromethane	<2140		2140		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
2-Chlorotoluene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
4-Chlorotoluene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2-Dibromo-3-chloropropane	<5360		5360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2-Dibromoethane (EDB)	<5360		5360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Dibromomethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2-Dichlorobenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,3-Dichlorobenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,4-Dichlorobenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Dichlorodifluoromethane	<1610		1610		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1-Dichloroethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2-Dichloroethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1-Dichloroethene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
cis-1,2-Dichloroethene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
trans-1,2-Dichloroethene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2-Dichloropropane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,3-Dichloropropane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
2,2-Dichloropropane	<2140		2140		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1-Dichloropropene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
cis-1,3-Dichloropropene	<536 L		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
trans-1,3-Dichloropropene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Ethylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Hexachlorobutadiene	<2680		2680		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Hexane	<2680		2680		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Isopropylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
p-Isopropyltoluene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Methylene Chloride	<5360		5360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Methyl tert-Butyl Ether	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Naphthalene	<2680		2680		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
n-Propylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Styrene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1,1,2-Tetrachloroethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1,2,2-Tetrachloroethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Tetrachloroethene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-2 2-4'**  
**Date Collected: 03/21/12 13:35**  
**Date Received: 03/23/12 09:24**

**Lab Sample ID: CVC1446-04**  
**Matrix: Soil**  
**Percent Solids: 79.3**

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2,3-Trichlorobenzene	<2680		2680		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2,4-Trichlorobenzene	<2680		2680		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1,1-Trichloroethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,1,2-Trichloroethane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Trichloroethene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Trichlorofluoromethane	<2140		2140		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2,3-Trichloropropane	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,2,4-Trimethylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
1,3,5-Trimethylbenzene	<536		536		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Vinyl chloride	<1610		1610		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
Xylenes, total	<1610		1610		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:02	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>			<b>Limits</b>				
Dibromofluoromethane	110				75 - 125				
Toluene-d8	94				80 - 120				
4-Bromofluorobenzene	102				80 - 120				

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<11.9		11.9		mg/kg	⊗	03/26/12 09:28	03/28/12 14:01	1.00
Diesel	<11.9		11.9		mg/kg	⊗	03/26/12 09:28	03/28/12 14:01	1.00
Gasoline	<11.9		11.9		mg/kg	⊗	03/26/12 09:28	03/28/12 14:01	1.00
Motor Oil	<11.9		11.9		mg/kg	⊗	03/26/12 09:28	03/28/12 14:01	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>			<b>Limits</b>				
Octacosane	84				50 - 150				

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	79.3		0.1		%	⊗	03/23/12 16:22	03/23/12 16:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-2**

Date Collected: 03/21/12 13:37

Date Received: 03/23/12 09:24

**Lab Sample ID: CVC1446-05**

Matrix: Ground Water

**Method: SW 8260B - Volatile Organic Compounds**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>4.54</b>	<b>J</b>	10.0	1.79	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Bromoform	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Bromochloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Bromodichloromethane	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Bromoform	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Bromomethane	<0.220		4.00	0.220	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Chloroethane	<0.150		4.00	0.150	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1-Dichloroethylene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
<b>cis-1,2-Dichloroethene</b>	<b>0.160</b>	<b>J</b>	1.00	0.130	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
2,2-Dichloropropane	<0.180		4.00	0.180	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Hexachlorobutadiene	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
<b>Methylene Chloride</b>	<b>0.190</b>	<b>J</b>	5.00	0.170	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Tetrachloroethylene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 13:45	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-2**

**Lab Sample ID: CVC1446-05**

Date Collected: 03/21/12 13:37  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.190	J	1.00	0.150	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2,3-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
Xylenes, total	0.160	J	3.00	0.130	ug/L		03/26/12 00:00	03/26/12 13:45	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	94		75 - 120				03/26/12 00:00	03/26/12 13:45	1.00
Toluene-d8	99		80 - 120				03/26/12 00:00	03/26/12 13:45	1.00
4-Bromofluorobenzene	102		75 - 110				03/26/12 00:00	03/26/12 13:45	1.00

## Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	>2	P	2.00		units		03/28/12 14:37	03/28/12 14:42	1.00

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Acenaphthylene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Anthracene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Benzo (a) anthracene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Benzo (b) fluoranthene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Benzo (k) fluoranthene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Benzo (a) pyrene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Benzo (g,h,i) perylene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Chrysene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Dibenzo (a,h) anthracene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Fluoranthene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Fluorene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Indeno (1,2,3-cd) pyrene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
2-Methylnaphthalene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Naphthalene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Phenanthrene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
Pyrene	<0.172		0.172		ug/L		03/27/12 11:25	03/29/12 17:49	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	39		25 - 95				03/27/12 11:25	03/29/12 17:49	1.00
Nitrobenzene-d5	45		25 - 95				03/27/12 11:25	03/29/12 17:49	1.00
Terphenyl-d14	61		25 - 120				03/27/12 11:25	03/29/12 17:49	1.00

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	184		97.0		ug/L		03/26/12 09:54	03/29/12 05:22	1.00
Diesel	<90.9	MDL	90.9		ug/L		03/26/12 09:54	03/29/12 05:22	1.00
Gasoline	115	J MDL Q	97.0		ug/L		03/26/12 09:54	03/29/12 05:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-2**

**Lab Sample ID: CVC1446-05**

Date Collected: 03/21/12 13:37  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	69.9	MDL Q J L1	59.7		ug/L		03/26/12 09:54	03/29/12 05:22	1.00
<hr/>									
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Octacosane	84		55 - 150				03/26/12 09:54	03/29/12 05:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-1**

**Lab Sample ID: CVC1446-06**

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 87.3

**Method: SW 8270D - PAH Compounds by SIM GCMS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0115		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
Acenaphthylene	<0.0115		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
Anthracene	<0.0115		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Benzo (a) anthracene</b>	<b>0.0323</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Benzo (b) fluoranthene</b>	<b>0.0480</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Benzo (k) fluoranthene</b>	<b>0.0124</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Benzo (a) pyrene</b>	<b>0.0357</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Benzo (g,h,i) perylene</b>	<b>0.0295</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Chrysene</b>	<b>0.0400</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
Dibenzo (a,h) anthracene	<0.0115		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Fluoranthene</b>	<b>0.0381</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
Fluorene	<0.0115		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Indeno (1,2,3-cd) pyrene</b>	<b>0.0210</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>2-Methylnaphthalene</b>	<b>0.0115</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
Naphthalene	<0.0115		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Phenanthrene</b>	<b>0.0438</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Pyrene</b>	<b>0.0453</b>		0.0115		mg/kg dry	⊗	03/23/12 13:07	03/28/12 00:42	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	35			25 - 105			03/23/12 13:07	03/28/12 00:42	1.00
Nitrobenzene-d5	35			20 - 105			03/23/12 13:07	03/28/12 00:42	1.00
Terphenyl-d14	42			30 - 125			03/23/12 13:07	03/28/12 00:42	1.00

**Method: SM 2540 G - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>% Solids</b>	<b>87.3</b>		0.1		%	⊗	03/23/12 16:22	03/23/12 16:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-3**

**Lab Sample ID: CVC1446-07**

Date Collected: 03/21/12 00:00

Matrix: Soil

Date Received: 03/23/12 09:24

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<11.7		11.7		mg/kg		03/26/12 09:28	03/28/12 14:42	1.00
Diesel	<11.7		11.7		mg/kg		03/26/12 09:28	03/28/12 14:42	1.00
Gasoline	<11.7		11.7		mg/kg		03/26/12 09:28	03/28/12 14:42	1.00
Motor Oil	<11.7		11.7		mg/kg		03/26/12 09:28	03/28/12 14:42	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Octacosane	88		50 - 150				03/26/12 09:28	03/28/12 14:42	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-2**

**Lab Sample ID: CVC1446-08**

Date Collected: 03/21/12 00:00

Matrix: Ground Water

Date Received: 03/23/12 09:24

## Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>3.01</b>	<b>J</b>	10.0	1.79	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Bromoform	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Bromochloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Bromodichloromethane	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Bromoform	<0.140		4.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Bromomethane	<0.220		1.00	0.220	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Chloroethane	<0.150		4.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1-Dichloroethene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
cis-1,2-Dichloroethene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
2,2-Dichloropropane	<0.180		4.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Hexachlorobutadiene	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
<b>Methylene Chloride</b>	<b>0.310</b>	<b>J</b>	5.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:07	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-2**

**Lab Sample ID: CVC1446-08**

Date Collected: 03/21/12 00:00

Matrix: Ground Water

Date Received: 03/23/12 09:24

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.250	J	1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2,3-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
Xylenes, total	0.200	J	3.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:07	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	98		75 - 120				03/26/12 00:00	03/26/12 14:07	1.00
Toluene-d8	100		80 - 120				03/26/12 00:00	03/26/12 14:07	1.00
4-Bromofluorobenzene	103		75 - 110				03/26/12 00:00	03/26/12 14:07	1.00

## Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	>2	P	2.00		units		03/28/12 14:37	03/28/12 14:42	1.00

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Acenaphthylene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Anthracene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Benzo (a) anthracene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Benzo (b) fluoranthene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Benzo (k) fluoranthene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Benzo (a) pyrene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Benzo (g,h,i) perylene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Chrysene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Dibenzo (a,h) anthracene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Fluoranthene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Fluorene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Indeno (1,2,3-cd) pyrene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
2-Methylnaphthalene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Naphthalene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Phenanthrene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
Pyrene	<0.127		0.127		ug/L		03/27/12 11:25	03/29/12 18:19	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	42		25 - 95				03/27/12 11:25	03/29/12 18:19	1.00
Nitrobenzene-d5	49		25 - 95				03/27/12 11:25	03/29/12 18:19	1.00
Terphenyl-d14	66		25 - 120				03/27/12 11:25	03/29/12 18:19	1.00

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	247		135		ug/L		03/26/12 09:54	03/29/12 06:05	1.00
Diesel	<127	MDL	127		ug/L		03/26/12 09:54	03/29/12 06:05	1.00
Gasoline	163	J MDL Q	135		ug/L		03/26/12 09:54	03/29/12 06:05	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-2**

**Lab Sample ID: CVC1446-08**

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	84.2	J L1 MDL Q	83.0		ug/L		03/26/12 09:54	03/29/12 06:05	1.00
<hr/>									
<b>Surrogate</b>									
Octacosane	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
	131		55 - 150				03/26/12 09:54	03/29/12 06:05	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: Field Blank

Date Collected: 03/21/12 00:00

Lab Sample ID: CVC1446-09

Matrix: Water

Date Received: 03/23/12 09:24

### Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Acetone</b>	<b>4.78</b>	<b>J</b>	10.0	1.79	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Bromoform	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Bromochloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Bromodichloromethane	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Bromoform	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Bromomethane	<0.220		4.00	0.220	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Chloroethane	<0.150		4.00	0.150	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1-Dichloroethene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
cis-1,2-Dichloroethene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
<b>2,2-Dichloropropane</b>	<b>0.180</b>	<b>J</b>	4.00	0.180	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Hexachlorobutadiene	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
<b>Methylene Chloride</b>	<b>0.720</b>	<b>J</b>	5.00	0.170	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 11:53	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

## Client Sample ID: Field Blank

Lab Sample ID: CVC1446-09

Matrix: Water

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

### Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.160	J	1.00	0.150	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2,3-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
Xylenes, total	<0.130		3.00	0.130	ug/L		03/26/12 00:00	03/26/12 11:53	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	98		75 - 120				03/26/12 00:00	03/26/12 11:53	1.00
Toluene-d8	101		80 - 120				03/26/12 00:00	03/26/12 11:53	1.00
4-Bromofluorobenzene	96		75 - 110				03/26/12 00:00	03/26/12 11:53	1.00

### Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		03/28/12 14:37	03/28/12 14:42	1.00

### Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Acenaphthylene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Anthracene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Benzo (a) anthracene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Benzo (b) fluoranthene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Benzo (k) fluoranthene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Benzo (a) pyrene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Benzo (g,h,i) perylene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Chrysene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Dibenzo (a,h) anthracene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Fluoranthene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Fluorene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Indeno (1,2,3-cd) pyrene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
2-Methylnaphthalene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Naphthalene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Phenanthrene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
Pyrene	<0.115		0.115		ug/L		03/27/12 11:25	03/29/12 18:49	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	48		25 - 95				03/27/12 11:25	03/29/12 18:49	1.00
Nitrobenzene-d5	61		25 - 95				03/27/12 11:25	03/29/12 18:49	1.00
Terphenyl-d14	70		25 - 120				03/27/12 11:25	03/29/12 18:49	1.00

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<300		300		ug/L		03/26/12 09:54	03/29/12 06:47	1.00
Diesel	<300		300		ug/L		03/26/12 09:54	03/29/12 06:47	1.00
Gasoline	<300		300		ug/L		03/26/12 09:54	03/29/12 06:47	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: Field Blank**

**Lab Sample ID: CVC1446-09**

**Matrix: Water**

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

**Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	<300	L1	300		ug/L		03/26/12 09:54	03/29/12 06:47	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Octacosane	82		55 - 150				03/26/12 09:54	03/29/12 06:47	1.00

**Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
alpha-BHC	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
beta-BHC	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
delta-BHC	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
gamma-BHC (Lindane)	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Chlordane	<2.25		2.25		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Dieldrin	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
4,4'-DDD	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
4,4'-DDE	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
4,4'-DDT	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Endosulfan I	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Endosulfan II	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Endosulfan sulfate	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Endrin	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Endrin aldehyde	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Heptachlor	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Heptachlor epoxide	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Methoxychlor	<0.0360		0.0360		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
Toxaphene	<2.25		2.25		ug/L		03/27/12 11:33	03/28/12 16:13	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	69		45 - 130				03/27/12 11:33	03/28/12 16:13	1.00
Tetrachloro-meta-xylene	63		30 - 100				03/27/12 11:33	03/28/12 16:13	1.00

**Method: SW 7470A - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		03/27/12 10:40	03/27/12 13:27	1.00

**Method: SW 7010 - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.00100		0.00100		mg/L		03/26/12 10:48	04/03/12 23:32	1.00
Cadmium	<0.000500		0.000500		mg/L		03/26/12 10:48	03/30/12 11:39	1.00
Lead	<0.00400		0.00400		mg/L		03/26/12 10:48	03/27/12 12:58	1.00
Selenium	<0.00500		0.00500		mg/L		03/26/12 10:48	03/31/12 00:25	1.00

**Method: SW 6010C - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	<0.0100		0.0100		mg/L		03/26/12 10:31	03/26/12 20:40	1.00
Chromium	<0.0200		0.0200		mg/L		03/26/12 10:31	03/26/12 20:40	1.00
Silver	<0.0200		0.0200		mg/L		03/26/12 10:31	03/26/12 20:40	1.00

**Method: EPA 350.1 - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.200		0.200		mg/L		03/28/12 09:41	03/28/12 15:07	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: Field Blank**

**Lab Sample ID: CVC1446-09**

**Matrix: Water**

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

## Method: SM 4500 NO3 E/00 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L		03/23/12 13:45	03/23/12 13:45	1.00

## Method: 8151A D ug/L - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<1.1	*	1.1		ug/L		03/28/12 08:50	03/31/12 06:03	1
Silvex (2,4,5-TP)	<1.1		1.1		ug/L		03/28/12 08:50	03/31/12 06:03	1

## Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	72		30 - 129	03/28/12 08:50	03/31/12 06:03	1

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: Trip Blank

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-10

Matrix: Water

### Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1.79		10.0	1.79	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Bromoform	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Bromochloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Bromodichloromethane	<0.120		5.00	0.140	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Bromoform	<0.140		4.00	0.220	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
<b>Bromomethane</b>	<b>0.220</b>	<b>J</b>							
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
<b>Chloroethane</b>	<b>0.160</b>	<b>J B</b>							
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1-Dichloroethene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
cis-1,2-Dichloroethene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
2,2-Dichloropropane	<0.180		4.00	0.180	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Hexachlorobutadiene	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
<b>Methylene Chloride</b>	<b>0.250</b>	<b>J</b>							
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 12:15	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: Trip Blank**

**Lab Sample ID: CVC1446-10**

**Matrix: Water**

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

**Method: SW 8260B - Volatile Organic Compounds (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2,3-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
Xylenes, total	<0.130		3.00	0.130	ug/L		03/26/12 00:00	03/26/12 12:15	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	100		75 - 120				03/26/12 00:00	03/26/12 12:15	1.00
Toluene-d8	97		80 - 120				03/26/12 00:00	03/26/12 12:15	1.00
4-Bromofluorobenzene	102		75 - 110				03/26/12 00:00	03/26/12 12:15	1.00

**Method: SW 9041A - VOC Preservation Check**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		03/28/12 14:37	03/28/12 14:42	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-3 0-2'**

**Lab Sample ID: CVC1446-11**

Date Collected: 03/21/12 17:05

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 88.2

## Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<4540		4540		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Benzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Bromobenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Bromoform	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Bromomethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Bromodichloromethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
2-Butanone (MEK)	<4540		4540		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
n-Butylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
sec-Butylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
tert-Butylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Carbon disulfide	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Carbon Tetrachloride	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Chlorobenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Chlorodibromomethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Chloroethane	<1810		1810		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Chloroform	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Chloromethane	<1810		1810		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
2-Chlorotoluene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
4-Chlorotoluene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2-Dibromo-3-chloropropane	<4540		4540		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2-Dibromoethane (EDB)	<4540		4540		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Dibromomethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2-Dichlorobenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,3-Dichlorobenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,4-Dichlorobenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Dichlorodifluoromethane	<1360		1360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1-Dichloroethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2-Dichloroethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1-Dichloroethylene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
cis-1,2-Dichloroethene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
trans-1,2-Dichloroethene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2-Dichloropropane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,3-Dichloropropane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
2,2-Dichloropropane	<1810		1810		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1-Dichloropropene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
cis-1,3-Dichloropropene	<454 L		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
trans-1,3-Dichloropropene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Ethylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Hexachlorobutadiene	<2270		2270		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Hexane	<2270		2270		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Isopropylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
p-Isopropyltoluene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Methylene Chloride	<4540		4540		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Methyl tert-Butyl Ether	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Naphthalene	<2270		2270		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
n-Propylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Styrene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1,1,2-Tetrachloroethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1,2,2-Tetrachloroethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Tetrachloroethene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-3 0-2'**

**Lab Sample ID: CVC1446-11**

Date Collected: 03/21/12 17:05  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 88.2

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2,3-Trichlorobenzene	<2270		2270		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2,4-Trichlorobenzene	<2270		2270		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1,1-Trichloroethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,1,2-Trichloroethane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Trichloroethene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Trichlorofluoromethane	<1810		1810		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2,3-Trichloropropane	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,2,4-Trimethylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
1,3,5-Trimethylbenzene	<454		454		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Vinyl chloride	<1360		1360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
Xylenes, total	<1360		1360		ug/kg dry	⊗	03/27/12 00:00	03/27/12 12:33	100
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	107		75 - 125				03/27/12 00:00	03/27/12 12:33	100
Toluene-d8	96		80 - 120				03/27/12 00:00	03/27/12 12:33	100
4-Bromofluorobenzene	104		80 - 120				03/27/12 00:00	03/27/12 12:33	100

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0113		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Acenaphthylene</b>	<b>0.0463</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
Anthracene	<0.0113		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Benzo (a) anthracene</b>	<b>0.116</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Benzo (b) fluoranthene</b>	<b>0.160</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Benzo (k) fluoranthene</b>	<b>0.0696</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Benzo (a) pyrene</b>	<b>0.156</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Benzo (g,h,i) perylene</b>	<b>0.105</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Chrysene</b>	<b>0.132</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Dibenzo (a,h) anthracene</b>	<b>0.0292</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Fluoranthene</b>	<b>0.0879</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
Fluorene	<0.0113		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Indeno (1,2,3-cd) pyrene</b>	<b>0.0834</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>2-Methylnaphthalene</b>	<b>0.0183</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Naphthalene</b>	<b>0.0158</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Phenanthrene</b>	<b>0.0371</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<b>Pyrene</b>	<b>0.132</b>		0.0113		mg/kg dry	⊗	03/23/12 13:07	03/28/12 01:11	1.00
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	32		25 - 105				03/23/12 13:07	03/28/12 01:11	1.00
Nitrobenzene-d5	32		20 - 105				03/23/12 13:07	03/28/12 01:11	1.00
Terphenyl-d14	39		30 - 125				03/23/12 13:07	03/28/12 01:11	1.00

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	22.0		12.0		mg/kg	⊗	03/26/12 09:28	03/28/12 22:13	1.00
Diesel	<12.0		12.0		mg/kg	⊗	03/26/12 09:28	03/28/12 22:13	1.00
Gasoline	<12.0		12.0		mg/kg	⊗	03/26/12 09:28	03/28/12 22:13	1.00
Motor Oil	22.0		12.0		mg/kg	⊗	03/26/12 09:28	03/28/12 22:13	1.00
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Octacosane	111		50 - 150				03/26/12 09:28	03/28/12 22:13	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-3 0-2'**  
**Date Collected: 03/21/12 17:05**  
**Date Received: 03/23/12 09:24**

**Lab Sample ID: CVC1446-11**  
**Matrix: Soil**  
**Percent Solids: 88.2**

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	88.2		0.1		%		03/23/12 16:22	03/23/12 16:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-3**

Date Collected: 03/21/12 17:10

Date Received: 03/23/12 09:24

**Lab Sample ID: CVC1446-12**

Matrix: Ground Water

## Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	2.04	J	10.0	1.79	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Benzene	0.110	J	0.500	0.110	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Bromoform	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Bromochloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Bromodichloromethane	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Bromoform	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Bromomethane	<0.220		4.00	0.220	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Chloroethane	<0.150		4.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1-Dichloroethylene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
cis-1,2-Dichloroethene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
2,2-Dichloropropane	<0.180		4.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Hexachlorobutadiene	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
<b>Methylene Chloride</b>	<b>0.780</b>	<b>J</b>	5.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:29	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-3**

**Lab Sample ID: CVC1446-12**

Date Collected: 03/21/12 17:10  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.210	J	1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2,3-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
Xylenes, total	<0.130		3.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:29	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	100		75 - 120				03/26/12 00:00	03/26/12 14:29	1.00
Toluene-d8	96		80 - 120				03/26/12 00:00	03/26/12 14:29	1.00
4-Bromofluorobenzene	99		75 - 110				03/26/12 00:00	03/26/12 14:29	1.00

## Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	>2	P	2.00		units		03/28/12 14:37	03/28/12 14:42	1.00

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Acenaphthylene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Anthracene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Benzo (a) anthracene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Benzo (b) fluoranthene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Benzo (k) fluoranthene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Benzo (a) pyrene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Benzo (g,h,i) perylene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Chrysene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Dibenzo (a,h) anthracene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Fluoranthene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Fluorene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Indeno (1,2,3-cd) pyrene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
2-Methylnaphthalene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Naphthalene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Phenanthrene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
Pyrene	<0.139		0.139		ug/L		03/27/12 11:25	03/29/12 19:19	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	44		25 - 95				03/27/12 11:25	03/29/12 19:19	1.00
Nitrobenzene-d5	52		25 - 95				03/27/12 11:25	03/29/12 19:19	1.00
Terphenyl-d14	64		25 - 120				03/27/12 11:25	03/29/12 19:19	1.00

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<411		411		ug/L		03/26/12 09:54	03/29/12 07:32	1.00
Diesel	<411		411		ug/L		03/26/12 09:54	03/29/12 07:32	1.00
Gasoline	<411		411		ug/L		03/26/12 09:54	03/29/12 07:32	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-3**

**Lab Sample ID: CVC1446-12**

Date Collected: 03/21/12 17:10  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	<411	L1	411		ug/L		03/26/12 09:54	03/29/12 07:32	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Octacosane	89		55 - 150				03/26/12 09:54	03/29/12 07:32	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-1 0-2'**

**Lab Sample ID: CVC1446-13**

Date Collected: 03/21/12 15:58  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 81

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.730	RL1	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Acenaphthylene</b>	<b>2.38</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
Anthracene	<0.730	RL1	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Benzo (a) anthracene</b>	<b>3.05</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Benzo (b) fluoranthene</b>	<b>3.94</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Benzo (k) fluoranthene</b>	<b>1.81</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Benzo (a) pyrene</b>	<b>3.00</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Benzo (g,h,i) perylene</b>	<b>2.86</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Chrysene</b>	<b>3.56</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Dibenzo (a,h) anthracene</b>	<b>0.802</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Fluoranthene</b>	<b>1.98</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
Fluorene	<0.730	RL1	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Indeno (1,2,3-cd) pyrene</b>	<b>2.15</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
2-Methylnaphthalene	<0.730	RL1	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
Naphthalene	<0.730	RL1	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Phenanthrene</b>	<b>0.764</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Pyrene</b>	<b>4.00</b>	<b>RL1</b>	0.730		mg/kg dry	⊗	03/23/12 13:07	03/28/12 02:40	10.0
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	64	RL1	25 - 105				03/23/12 13:07	03/28/12 02:40	10.0
Nitrobenzene-d5	63	RL1	20 - 105				03/23/12 13:07	03/28/12 02:40	10.0
Terphenyl-d14	69	RL1	30 - 125				03/23/12 13:07	03/28/12 02:40	10.0

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
alpha-BHC	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
beta-BHC	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
delta-BHC	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
gamma-BHC (Lindane)	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Chlordane	<198		198		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Dieldrin	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
<b>4,4'-DDD</b>	<b>9.28</b>		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
4,4'-DDE	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
4,4'-DDT	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Endosulfan I	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Endosulfan II	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Endosulfan sulfate	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Endrin	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Endrin aldehyde	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Heptachlor	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Heptachlor epoxide	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Methoxychlor	<7.90		7.90		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
Toxaphene	<198		198		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:35	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	91		45 - 145				03/26/12 09:25	03/27/12 12:35	1.00
Tetrachloro-meta-xylene	64		55 - 105				03/26/12 09:25	03/27/12 12:35	1.00

## Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.0887</b>		0.0247		mg/kg dry	⊗	03/30/12 12:40	03/30/12 13:47	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-1 0-2'**

**Lab Sample ID: CVC1446-13**

Date Collected: 03/21/12 15:58

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 81

## Method: SW 7010 - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	16.0		2.47		mg/kg dry	⊗	03/28/12 10:48	03/29/12 10:17	2.00

## Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	90.9	M1	6.17		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:49	10.0
Cadmium	<12.3	IE	12.3		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:49	10.0
Chromium	<12.3	IE	12.3		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:49	10.0
Lead	63.8		61.7		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:49	10.0
Selenium	<92.6	IE	92.6		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:49	10.0
Silver	<12.3	IE M1	12.3		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:49	10.0

## Method: EPA 350.1 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<60.9		60.9		mg/kg dry	⊗	03/27/12 17:03	03/28/12 19:21	1.00

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	81.0		0.1		%	⊗	03/23/12 16:22	03/23/12 16:22	1.00

## Method: SW 9210A - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<6.17		6.17		mg/kg dry	⊗	03/27/12 18:25	03/27/12 18:25	1.00

## Method: 8151A D Dry mg/Kg - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.41		0.41		mg/Kg dry	⊗	04/02/12 20:35	04/04/12 07:54	10
Silvex (2,4,5-TP)	<0.41		0.41		mg/Kg dry	⊗	04/02/12 20:35	04/04/12 07:54	10

## Method: 8151A D Dry ug/Kg - Herbicides (GC)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCAA	58		32 - 122			04/02/12 20:35	04/04/12 07:54	10

## Method: Moisture % - Percent Moisture

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	19		0.10		%	⊗	03/29/12 13:00	03/29/12 13:00	1
Percent Solids	81		0.10		%	⊗	03/29/12 13:00	03/29/12 13:00	1

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-1 14-16'**

**Lab Sample ID: CVC1446-14**

Date Collected: 03/21/12 16:06

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 69.8

## Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<6200		6200		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>Benzene</b>	<b>3310</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Bromobenzene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Bromoform	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Bromochloromethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Bromodichloromethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Bromoform	<1240		1240		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Bromomethane	<2480		2480		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
2-Butanone (MEK)	<6200		6200		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>n-Butylbenzene</b>	<b>1030</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>sec-Butylbenzene</b>	<b>18300</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
tert-Butylbenzene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Carbon disulfide	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Carbon Tetrachloride	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Chlorobenzene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Chlorodibromomethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Chloroethane	<2480		2480		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Chloroform	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Chloromethane	<2480		2480		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
2-Chlorotoluene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
4-Chlorotoluene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,2-Dibromo-3-chloropropane	<6200		6200		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,2-Dibromoethane (EDB)	<6200		6200		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Dibromomethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,2-Dichlorobenzene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,3-Dichlorobenzene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,4-Dichlorobenzene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Dichlorodifluoromethane	<1860		1860		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,1-Dichloroethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,2-Dichloroethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,1-Dichloroethene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
cis-1,2-Dichloroethene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
trans-1,2-Dichloroethene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,2-Dichloropropane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,3-Dichloropropane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
2,2-Dichloropropane	<2480		2480		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,1-Dichloropropene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
cis-1,3-Dichloropropene	<620	L	620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
trans-1,3-Dichloropropene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>Ethylbenzene</b>	<b>19400</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Hexachlorobutadiene	<3100		3100		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Hexane	<3100		3100		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>Isopropylbenzene</b>	<b>779</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>p-Isopropyltoluene</b>	<b>1270</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Methylene Chloride	<6200		6200		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Methyl tert-Butyl Ether	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
<b>n-Propylbenzene</b>	<b>992</b>		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Styrene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,1,1,2-Tetrachloroethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
1,1,2,2-Tetrachloroethane	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Tetrachloroethene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100
Toluene	<620		620		ug/kg dry	⊗	03/27/12 00:00	03/27/12 13:03	100

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-1 14-16'**

**Lab Sample ID: CVC1446-14**

Date Collected: 03/21/12 16:06

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 69.8

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<3100		3100		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
1,2,4-Trichlorobenzene	<3100		3100		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
1,1,1-Trichloroethane	<620		620		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
1,1,2-Trichloroethane	<620		620		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
Trichloroethene	<620		620		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
Trichlorofluoromethane	<2480		2480		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
1,2,3-Trichloropropane	<620		620		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
<b>1,2,4-Trimethylbenzene</b>	<b>20700</b>		620		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
<b>1,3,5-Trimethylbenzene</b>	<b>5980</b>		620		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
Vinyl chloride	<1860		1860		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
<b>Xylenes, total</b>	<b>23700</b>		1860		ug/kg dry	☀	03/27/12 00:00	03/27/12 13:03	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	108		75 - 125				03/27/12 00:00	03/27/12 13:03	100
Toluene-d8	96		80 - 120				03/27/12 00:00	03/27/12 13:03	100
4-Bromofluorobenzene	109		80 - 120				03/27/12 00:00	03/27/12 13:03	100

## Method: SW 8260B - Volatile Organic Compounds - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	494000		31000		ug/kg dry	☀	03/28/12 00:00	03/28/12 17:08	1000

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	5.54	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
Benzo (b) fluoranthene	6.68	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
Benzo (k) fluoranthene	2.64	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
Benzo (g,h,i) perylene	3.22	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
Dibenzo (a,h) anthracene	0.974	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
Indeno (1,2,3-cd) pyrene	2.69	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
2-Methylnaphthalene	4.85	RL1	0.208		mg/kg dry	☀	03/23/12 13:07	03/28/12 03:10	10.0
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	58	RL1	25 - 105				03/23/12 13:07	03/28/12 03:10	10.0
Nitrobenzene-d5	34	RL1	20 - 105				03/23/12 13:07	03/28/12 03:10	10.0
Terphenyl-d14	105	RL1	30 - 125				03/23/12 13:07	03/28/12 03:10	10.0

## Method: SW 8270D - PAH Compounds by SIM GCMS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthylene	45.2		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Anthracene	25.7		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Benzo (a) anthracene	13.1		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Benzo (a) pyrene	10.6		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Chrysene	11.5		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Fluoranthene	19.0		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Fluorene	28.4		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Naphthalene	215		20.8		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:41	1000
Phenanthrene	78.4		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100
Pyrene	33.6		2.08		mg/kg dry	☀	03/23/12 13:07	03/28/12 15:11	100

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	1780		19.2		mg/kg	☀	03/26/12 09:28	03/29/12 01:40	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-1 14-16'**

**Lab Sample ID: CVC1446-14**

Date Collected: 03/21/12 16:06  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 69.8

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel	835		19.2		mg/kg		03/26/12 09:28	03/29/12 01:40	1.00
Gasoline	598	Q	19.2		mg/kg		03/26/12 09:28	03/29/12 01:40	1.00
Motor Oil	346	Q	19.2		mg/kg		03/26/12 09:28	03/29/12 01:40	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Octacosane	193	ZX	50 - 150				03/26/12 09:28	03/29/12 01:40	1.00

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	69.8		0.1		%		03/23/12 16:24	03/23/12 16:24	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-1**

Date Collected: 03/21/12 16:04

Date Received: 03/23/12 09:24

**Lab Sample ID: CVC1446-15**

Matrix: Ground Water

## Method: SW 8260B - Volatile Organic Compounds

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<8.95		50.0	8.95	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Benzene</b>	<b>1060</b>		2.50	0.550	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Bromobenzene	<1.05		5.00	1.05	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Bromoform	<0.600		25.0	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Bromochloromethane	<0.600		5.00	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Bromodichloromethane	<0.600		25.0	0.700	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Bromoform	<0.700		25.0	0.700	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Bromomethane	<1.10		20.0	1.10	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
2-Butanone (MEK)	<2.35		50.0	2.35	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>n-Butylbenzene</b>	<b>7.35</b>		5.00	1.85	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
sec-Butylbenzene	<1.00		5.00	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
tert-Butylbenzene	<0.600		5.00	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Carbon disulfide	<0.750		5.00	0.750	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Carbon Tetrachloride	<1.20	CIN	10.0	1.20	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Chlorobenzene	<0.950		5.00	0.950	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Chlorodibromomethane	<1.00		25.0	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Chloroethane	<0.750		20.0	0.750	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Chloroform</b>	<b>2.00 J</b>		5.00	1.40	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Chloromethane	<1.55		15.0	1.55	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
2-Chlorotoluene	<0.600		5.00	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
4-Chlorotoluene	<0.650		5.00	0.650	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2-Dibromo-3-chloropropane	<0.600		50.0	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2-Dibromoethane (EDB)	<0.650		50.0	0.650	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Dibromomethane	<0.900		5.00	0.900	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2-Dichlorobenzene	<0.700		5.00	0.700	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,3-Dichlorobenzene	<0.850		5.00	0.850	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,4-Dichlorobenzene	<1.00		5.00	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Dichlorodifluoromethane	<1.00		15.0	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1-Dichloroethane	<1.05		5.00	1.05	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2-Dichloroethane	<0.900		5.00	0.900	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1-Dichloroethene	<0.750		10.0	0.750	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
cis-1,2-Dichloroethene	<0.650		5.00	0.650	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
trans-1,2-Dichloroethene	<1.05		5.00	1.05	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2-Dichloropropane	<4.35		5.00	4.35	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,3-Dichloropropane	<0.800		5.00	0.800	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
2,2-Dichloropropane	<0.900		20.0	0.900	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1-Dichloropropene	<0.750		5.00	0.750	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
cis-1,3-Dichloropropene	<0.750	CIN	25.0	0.750	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
trans-1,3-Dichloropropene	<1.10		25.0	1.10	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Ethylbenzene</b>	<b>1100</b>		5.00	1.05	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Hexachlorobutadiene	<1.00		25.0	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Hexane	<1.00		5.00	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Isopropylbenzene</b>	<b>18.9</b>		5.00	0.950	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>p-Isopropyltoluene</b>	<b>12.6</b>		5.00	0.700	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Methylene Chloride	<0.850		25.0	0.850	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Methyl tert-Butyl Ether	<0.800		5.00	0.800	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>n-Propylbenzene</b>	<b>16.9</b>		5.00	0.500	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Styrene	<0.500		5.00	0.500	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1,1,2-Tetrachloroethane	<1.05		5.00	1.05	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1,2,2-Tetrachloroethane	<0.500		5.00	0.500	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Tetrachloroethene	<0.900		5.00	0.900	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Toluene</b>	<b>58.4</b>		5.00	0.750	ug/L		03/26/12 00:00	03/26/12 15:14	5.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-1**

**Lab Sample ID: CVC1446-15**

Date Collected: 03/21/12 16:04

Matrix: Ground Water

Date Received: 03/23/12 09:24

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,3-Trichlorobenzene	<0.800		25.0	0.800	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2,4-Trichlorobenzene	<0.800		25.0	0.800	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1,1-Trichloroethane	<0.600		5.00	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,1,2-Trichloroethane	<0.600		5.00	0.600	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Trichloroethene	<0.950		5.00	0.950	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Trichlorofluoromethane	<0.850		20.0	0.850	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
1,2,3-Trichloropropane	<0.950		5.00	0.950	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>1,2,4-Trimethylbenzene</b>	<b>407</b>		5.00	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>1,3,5-Trimethylbenzene</b>	<b>109</b>		5.00	1.00	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
Vinyl chloride	<0.500		5.00	0.500	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Xylenes, total</b>	<b>1180</b>		15.0	0.650	ug/L		03/26/12 00:00	03/26/12 15:14	5.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	102		75 - 120				03/26/12 00:00	03/26/12 15:14	5.00
Toluene-d8	98		80 - 120				03/26/12 00:00	03/26/12 15:14	5.00
4-Bromofluorobenzene	98		75 - 110				03/26/12 00:00	03/26/12 15:14	5.00

## Method: SW 8260B - Volatile Organic Compounds - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	14300	B	500	37.0	ug/L		03/28/12 00:00	03/28/12 11:08	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	98		75 - 120				03/28/12 00:00	03/28/12 11:08	100
Toluene-d8	93		80 - 120				03/28/12 00:00	03/28/12 11:08	100
4-Bromofluorobenzene	103		75 - 110				03/28/12 00:00	03/28/12 11:08	100

## Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	>2	P	2.00		units		03/26/12 11:50	03/26/12 11:54	1.00

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	536		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Acenaphthylene	3850		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
Anthracene	1940		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
Benzo (a) anthracene	833		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
Benzo (b) fluoranthene	461		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Benzo (k) fluoranthene	168		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Benzo (a) pyrene	724		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Benzo (g,h,i) perylene	220		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Chrysene	782		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Dibenzo (a,h) anthracene	61.2		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Fluoranthene	1700		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
Fluorene	2210		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
Indeno (1,2,3-cd) pyrene	172		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
2-Methylnaphthalene	403		8.43		ug/L		03/27/12 11:25	03/29/12 20:18	10.0
Phenanthrene	5750		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
Pyrene	2460		84.3		ug/L		03/27/12 11:25	03/29/12 20:48	100
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	67		25 - 95				03/27/12 11:25	03/29/12 20:18	10.0
Nitrobenzene-d5	39		25 - 95				03/27/12 11:25	03/29/12 20:18	10.0

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-1**

**Lab Sample ID: CVC1446-15**

Date Collected: 03/21/12 16:04

Matrix: Ground Water

Date Received: 03/23/12 09:24

## Method: SW 8270D - PAH Compounds by SIM GCMS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Terphenyl-d14	91		25 - 120	03/27/12 11:25	03/29/12 20:18	10.0

## Method: SW 8270D - PAH Compounds by SIM GCMS - RE1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	16200		843		ug/L		03/27/12 11:25	03/30/12 09:48	1000

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	102000		1850		ug/L		03/26/12 09:54	03/29/12 14:33	1.00
Diesel	63400 Q		1850		ug/L		03/26/12 09:54	03/29/12 14:33	1.00
Gasoline	9040 Q		1850		ug/L		03/26/12 09:54	03/29/12 14:33	1.00
Motor Oil	29200 L1 Q		1850		ug/L		03/26/12 09:54	03/29/12 14:33	1.00

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Octacosane	244	ZX	55 - 150	03/26/12 09:54	03/29/12 14:33	1.00

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
alpha-BHC	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
beta-BHC	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
delta-BHC	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
gamma-BHC (Lindane)	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Chlordane	<2.56		2.56		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Dieldrin	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
4,4'-DDD	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
4,4'-DDE	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
<b>4,4'-DDT</b>	<b>0.246 R10</b>		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Endosulfan I	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Endosulfan II	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Endosulfan sulfate	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Endrin	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Endrin aldehyde	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Heptachlor	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Heptachlor epoxide	<0.0410		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
<b>Methoxychlor</b>	<b>0.258 R10</b>		0.0410		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Toxaphene	<2.56		2.56		ug/L		03/27/12 11:33	03/28/12 16:25	1.00
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Decachlorobiphenyl	63		45 - 130				03/27/12 11:33	03/28/12 16:25	1.00
Tetrachloro-meta-xylene	68		30 - 100				03/27/12 11:33	03/28/12 16:25	1.00

## Method: SW 7470A - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.00104</b>		0.000200		mg/L		03/27/12 10:40	03/27/12 13:29	1.00

## Method: SW 7010 - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Arsenic</b>	<b>0.0231</b>	pH>2	0.00500		mg/L		03/26/12 10:48	04/04/12 09:02	5.00
<b>Cadmium</b>	<b>0.00199</b>	pH>2	0.000500		mg/L		03/26/12 10:48	03/30/12 11:29	1.00
<b>Lead</b>	<b>0.0687</b>	pH>2	0.00800		mg/L		03/26/12 10:48	03/27/12 13:06	2.00
Selenium	<0.00500	pH>2	0.00500		mg/L		03/26/12 10:48	03/31/12 00:29	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-1**

**Lab Sample ID: CVC1446-15**

Date Collected: 03/21/12 16:04  
Date Received: 03/23/12 09:24

Matrix: Ground Water

**Method: SW 6010C - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.517	pH>2	0.0300		mg/L		03/26/12 10:31	03/26/12 22:02	3.00
Chromium	<0.0600	IE pH>2	0.0600		mg/L		03/26/12 10:31	03/26/12 22:02	3.00
Silver	<0.0600	IE pH>2	0.0600		mg/L		03/26/12 10:31	03/28/12 13:33	3.00

**Method: EPA 350.1 - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	5.30	pH>2	0.200		mg/L		03/28/12 09:41	03/28/12 15:08	1.00

**Method: SM 4500 NO3 E/00 - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	0.163		0.100		mg/L		03/23/12 13:38	03/23/12 13:38	1.00

**Method: 8151A D ug/L - Herbicides (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<11	*	11		ug/L		03/28/12 08:50	03/31/12 06:25	10
Silvex (2,4,5-TP)	<11		11		ug/L		03/28/12 08:50	03/31/12 06:25	10
<b>Surrogate</b>									
DCAA	36	%Recovery	Qualifer	Limits			03/28/12 08:50	03/31/12 06:25	10

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-7**

**Lab Sample ID: CVC1446-16**

Date Collected: 03/21/12 00:00

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 81.6

**Method: SW 7471B - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.0660		0.0245		mg/kg dry	⊗	03/30/12 12:40	03/30/12 13:49	1.00

**Method: SW 7010 - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	17.2		2.45		mg/kg dry	⊗	03/28/12 10:48	03/29/12 10:17	2.00

**Method: SW 6010C - Total Metals by SW 846 Series Methods**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	292		1.84		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:56	3.00
Cadmium	<3.68	IE	3.68		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:56	3.00
Chromium	18.1		3.68		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:56	3.00
Lead	39.6		18.4		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:56	3.00
Selenium	<27.6	IE	27.6		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:56	3.00
Silver	<3.68	IE	3.68		mg/kg dry	⊗	03/28/12 10:35	03/29/12 15:56	3.00

**Method: EPA 350.1 - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<59.0		59.0		mg/kg dry	⊗	03/27/12 17:03	03/28/12 19:22	1.00

**Method: SM 2540 G - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	81.6		0.1		%	—	03/23/12 16:22	03/23/12 16:22	1.00

**Method: SW 9210A - General Chemistry Parameters**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<6.13		6.13		mg/kg dry	⊗	03/27/12 18:26	03/27/12 18:26	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4 0-2'**

**Lab Sample ID: CVC1446-17**

Date Collected: 03/21/12 14:45  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 83

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
Acenaphthylene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
Anthracene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Benzo (a) anthracene</b>	<b>0.660</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Benzo (b) fluoranthene</b>	<b>0.971</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Benzo (k) fluoranthene</b>	<b>0.415</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Benzo (a) pyrene</b>	<b>0.998</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Benzo (g,h,i) perylene</b>	<b>0.669</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Chrysene</b>	<b>0.779</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
Dibenzo (a,h) anthracene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Fluoranthene</b>	<b>0.556</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
Fluorene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Indeno (1,2,3-cd) pyrene</b>	<b>0.509</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
2-Methylnaphthalene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
Naphthalene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
Phenanthrene	<0.355	RL1	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Pyrene</b>	<b>0.893</b>	<b>RL1</b>	0.355		mg/kg dry	⊗	03/23/12 13:07	03/28/12 03:40	10.0
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	45	RL1	25 - 105				03/23/12 13:07	03/28/12 03:40	10.0
Nitrobenzene-d5	47	RL1	20 - 105				03/23/12 13:07	03/28/12 03:40	10.0
Terphenyl-d14	51	RL1	30 - 125				03/23/12 13:07	03/28/12 03:40	10.0

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
alpha-BHC	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
beta-BHC	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
delta-BHC	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
gamma-BHC (Lindane)	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Chlordane	<193		193		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Dieldrin	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
4,4'-DDD	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
4,4'-DDE	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
4,4'-DDT	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Endosulfan I	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Endosulfan II	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Endosulfan sulfate	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Endrin	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Endrin aldehyde	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Heptachlor	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Heptachlor epoxide	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Methoxychlor	<7.71		7.71		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
Toxaphene	<193		193		ug/kg dry	⊗	03/26/12 09:25	03/27/12 12:47	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	70		45 - 145				03/26/12 09:25	03/27/12 12:47	1.00
Tetrachloro-meta-xylene	56		55 - 105				03/26/12 09:25	03/27/12 12:47	1.00

## Method: SW 7471B - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Mercury</b>	<b>0.208</b>		0.0241		mg/kg dry	⊗	03/30/12 12:40	03/30/12 13:51	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: SB-4 0-2'**

**Lab Sample ID: CVC1446-17**

Date Collected: 03/21/12 14:45

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 83

## Method: SW 7010 - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	21.0		2.41		mg/kg dry	⊗	03/28/12 10:48	03/29/12 10:17	2.00

## Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	205		0.602		mg/kg dry	⊗	03/28/12 10:35	03/28/12 17:48	1.00
Cadmium	2.15		1.20		mg/kg dry	⊗	03/28/12 10:35	03/28/12 17:48	1.00
Chromium	15.9		1.20		mg/kg dry	⊗	03/28/12 10:35	03/28/12 17:48	1.00
Lead	305		6.02		mg/kg dry	⊗	03/28/12 10:35	03/28/12 17:48	1.00
Selenium	<9.03		9.03		mg/kg dry	⊗	03/28/12 10:35	03/28/12 17:48	1.00
Silver	1.64		1.20		mg/kg dry	⊗	03/28/12 10:35	03/28/12 17:48	1.00

## Method: EPA 350.1 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<58.5		58.5		mg/kg dry	⊗	03/27/12 17:03	03/28/12 19:23	1.00

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	83.0		0.1		%	⊗	03/23/12 16:22	03/23/12 16:22	1.00

## Method: SW 9210A - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<6.02		6.02		mg/kg dry	⊗	03/27/12 18:27	03/27/12 18:27	1.00

## Method: 8151A D Dry mg/Kg - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<0.40		0.40		mg/Kg dry	⊗	04/02/12 20:35	04/04/12 08:16	10
Silvex (2,4,5-TP)	<0.40		0.40		mg/Kg dry	⊗	04/02/12 20:35	04/04/12 08:16	10

## Method: 8151A D Dry ug/Kg - Herbicides (GC)

Surrogate	%Recovery	Qualifier	Limits			Prepared	Analyzed	Dil Fac
DCAA	61		32 - 122			04/02/12 20:35	04/04/12 08:16	10

## Method: Moisture % - Percent Moisture

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Moisture	17		0.10		%	⊗	03/29/12 13:00	03/29/12 13:00	1
Percent Solids	83		0.10		%	⊗	03/29/12 13:00	03/29/12 13:00	1

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4 12-14'**

**Lab Sample ID: CVC1446-18**

Date Collected: 03/21/12 14:55

Matrix: Soil

Date Received: 03/23/12 09:24

Percent Solids: 73.8

**Method: SW 8260B - Volatile Organic Compounds**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<3390	L	3390		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Benzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Bromobenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Bromoform	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Bromochloromethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Bromodichloromethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Bromomethane	<678		678		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
2-Butanone (MEK)	<1360		1360		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
n-Butylbenzene	<3390		3390		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
sec-Butylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
tert-Butylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Carbon disulfide	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Carbon Tetrachloride	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Chlorobenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Chlorodibromomethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Chloroethane	<1360		1360		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Chloroform	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Chloromethane	<1360		1360		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
2-Chlorotoluene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
4-Chlorotoluene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2-Dibromo-3-chloropropane	<3390		3390		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2-Dibromoethane (EDB)	<3390		3390		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Dibromomethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2-Dichlorobenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,3-Dichlorobenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,4-Dichlorobenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Dichlorodifluoromethane	<1020		1020		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1-Dichloroethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2-Dichloroethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1-Dichloroethene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
cis-1,2-Dichloroethene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
trans-1,2-Dichloroethene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2-Dichloropropane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,3-Dichloropropane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
2,2-Dichloropropane	<1360		1360		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1-Dichloropropene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
cis-1,3-Dichloropropene	<339 L		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
trans-1,3-Dichloropropene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Ethylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Hexachlorobutadiene	<1690		1690		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Hexane	<1690		1690		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Isopropylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
p-Isopropyltoluene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Methylene Chloride	<3390		3390		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Methyl tert-Butyl Ether	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Naphthalene	<1690		1690		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
n-Propylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Styrene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1,1,2-Tetrachloroethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1,2,2-Tetrachloroethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Tetrachloroethene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4 12-14'**

**Lab Sample ID: CVC1446-18**

Date Collected: 03/21/12 14:55  
Date Received: 03/23/12 09:24

Matrix: Soil

Percent Solids: 73.8

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2,3-Trichlorobenzene	<1690		1690		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2,4-Trichlorobenzene	<1690		1690		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1,1-Trichloroethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,1,2-Trichloroethane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Trichloroethene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Trichlorofluoromethane	<1360		1360		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2,3-Trichloropropane	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,2,4-Trimethylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
1,3,5-Trimethylbenzene	<339		339		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Vinyl chloride	<1020		1020		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
Xylenes, total	<1020		1020		ug/kg dry	⊗	03/28/12 00:00	03/28/12 17:38	50.0
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Dibromofluoromethane	95		75 - 125				03/28/12 00:00	03/28/12 17:38	50.0
Toluene-d8	93		80 - 120				03/28/12 00:00	03/28/12 17:38	50.0
4-Bromofluorobenzene	105		80 - 120				03/28/12 00:00	03/28/12 17:38	50.0

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Acenaphthylene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Anthracene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Benzo (a) anthracene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Benzo (b) fluoranthene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Benzo (k) fluoranthene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Benzo (a) pyrene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Benzo (g,h,i) perylene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Chrysene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Dibenzo (a,h) anthracene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Fluoranthene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Fluorene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Indeno (1,2,3-cd) pyrene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
2-Methylnaphthalene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Naphthalene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Phenanthrene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
Pyrene	<0.0136		0.0136		mg/kg dry	⊗	03/23/12 13:07	03/27/12 15:08	1.00
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	43		25 - 105				03/23/12 13:07	03/27/12 15:08	1.00
Nitrobenzene-d5	44		20 - 105				03/23/12 13:07	03/27/12 15:08	1.00
Terphenyl-d14	47		30 - 125				03/23/12 13:07	03/27/12 15:08	1.00

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<19.6		19.6		mg/kg	⊗	03/26/12 09:28	03/28/12 15:23	1.00
Diesel	<19.6		19.6		mg/kg	⊗	03/26/12 09:28	03/28/12 15:23	1.00
Gasoline	<19.6		19.6		mg/kg	⊗	03/26/12 09:28	03/28/12 15:23	1.00
Motor Oil	<19.6		19.6		mg/kg	⊗	03/26/12 09:28	03/28/12 15:23	1.00
<hr/>									
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Octacosane	91		50 - 150				03/26/12 09:28	03/28/12 15:23	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4 12-14'**  
**Date Collected: 03/21/12 14:55**  
**Date Received: 03/23/12 09:24**

**Lab Sample ID: CVC1446-18**  
**Matrix: Soil**  
**Percent Solids: 73.8**

## Method: SM 2540 G - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
% Solids	73.8		0.1		%		03/23/12 16:22	03/23/12 16:22	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4**

Date Collected: 03/21/12 14:43

Date Received: 03/23/12 09:24

**Lab Sample ID: CVC1446-19**

Matrix: Ground Water

**Method: SW 8260B - Volatile Organic Compounds**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<1.79		10.0	1.79	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Bromoform	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Bromochloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Bromodichloromethane	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Bromoform	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Bromomethane	<0.220		4.00	0.220	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Chloroethane	<0.150		4.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1-Dichloroethene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
cis-1,2-Dichloroethene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
2,2-Dichloropropane	<0.180		4.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Hexachlorobutadiene	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Methylene Chloride	<0.170		5.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 14:52	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4**

**Lab Sample ID: CVC1446-19**

Date Collected: 03/21/12 14:43

Matrix: Ground Water

Date Received: 03/23/12 09:24

## Method: SW 8260B - Volatile Organic Compounds (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Toluene	0.260	J	1.00	0.150	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2,3-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
Xylenes, total	0.210	J	3.00	0.130	ug/L		03/26/12 00:00	03/26/12 14:52	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Dibromofluoromethane	98		75 - 120				03/26/12 00:00	03/26/12 14:52	1.00
Toluene-d8	101		80 - 120				03/26/12 00:00	03/26/12 14:52	1.00
4-Bromofluorobenzene	101		75 - 110				03/26/12 00:00	03/26/12 14:52	1.00

## Method: SW 9041A - VOC Preservation Check

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	<2.00		2.00		units		03/28/12 14:37	03/28/12 14:42	1.00

## Method: SW 8270D - PAH Compounds by SIM GCMS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Acenaphthylene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Anthracene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Benzo (a) anthracene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Benzo (b) fluoranthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Benzo (k) fluoranthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Benzo (a) pyrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Benzo (g,h,i) perylene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Chrysene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Dibenzo (a,h) anthracene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Fluoranthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Fluorene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Indeno (1,2,3-cd) pyrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
2-Methylnaphthalene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
<b>Naphthalene</b>	<b>2.53</b>		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Phenanthrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
Pyrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 19:48	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
2-Fluorobiphenyl	49		25 - 95				03/27/12 11:25	03/29/12 19:48	1.00
Nitrobenzene-d5	59		25 - 95				03/27/12 11:25	03/29/12 19:48	1.00
Terphenyl-d14	69		25 - 120				03/27/12 11:25	03/29/12 19:48	1.00

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Extractable Hydrocarbons	<300		300		ug/L		03/26/12 09:54	03/29/12 08:11	1.00
Diesel	<300		300		ug/L		03/26/12 09:54	03/29/12 08:11	1.00
Gasoline	<300		300		ug/L		03/26/12 09:54	03/29/12 08:11	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4**

**Lab Sample ID: CVC1446-19**

Date Collected: 03/21/12 14:43  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Motor Oil	<300	L1	300		ug/L		03/26/12 09:54	03/29/12 08:11	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Octacosane	86		55 - 150				03/26/12 09:54	03/29/12 08:11	1.00

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
alpha-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
beta-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
delta-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
gamma-BHC (Lindane)	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Chlordane	<2.00		2.00		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Dieldrin	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
4,4'-DDD	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
4,4'-DDE	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
4,4'-DDT	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Endosulfan I	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Endosulfan II	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Endosulfan sulfate	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Endrin	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Endrin aldehyde	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Heptachlor	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Heptachlor epoxide	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Methoxychlor	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
Toxaphene	<2.00		2.00		ug/L		03/27/12 11:33	03/28/12 16:38	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	49		45 - 130				03/27/12 11:33	03/28/12 16:38	1.00
Tetrachloro-meta-xylene	51		30 - 100				03/27/12 11:33	03/28/12 16:38	1.00

## Method: SW 7470A - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		03/27/12 10:40	03/27/12 13:31	1.00

## Method: SW 7010 - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0277		0.00100		mg/L		03/26/12 10:48	04/03/12 23:40	1.00
Cadmium	0.00350		0.00200		mg/L		03/26/12 10:48	03/30/12 12:16	4.00
Lead	0.0208		0.00400		mg/L		03/26/12 10:48	03/27/12 13:10	1.00
Selenium	<0.00500		0.00500		mg/L		03/26/12 10:48	03/31/12 00:32	1.00

## Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	2.36		0.0300		mg/L		03/26/12 10:31	03/26/12 20:43	3.00
Chromium	0.0372		0.0200		mg/L		03/26/12 10:31	03/26/12 20:43	1.00
Silver	<0.0200		0.0200		mg/L		03/26/12 10:31	03/26/12 20:43	1.00

## Method: EPA 350.1 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	1.93		0.200		mg/L		03/28/12 09:41	03/28/12 15:10	1.00

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4**

**Lab Sample ID: CVC1446-19**

Date Collected: 03/21/12 14:43  
Date Received: 03/23/12 09:24

Matrix: Ground Water

## Method: SM 4500 NO3 E/00 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L		03/23/12 13:41	03/23/12 13:41	1.00

## Method: 8151A D ug/L - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<1.1	*	1.1		ug/L		03/28/12 08:50	03/31/12 06:47	1
Silvex (2,4,5-TP)	<1.1		1.1		ug/L		03/28/12 08:50	03/31/12 06:47	1

## Surrogate

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCAA	80		30 - 129	03/28/12 08:50	03/31/12 06:47	1

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

**Client Sample ID: DUP-5**

**Lab Sample ID: CVC1446-20**

Date Collected: 03/21/12 00:00

Matrix: Ground Water

Date Received: 03/23/12 09:24

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
alpha-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
beta-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
delta-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
gamma-BHC (Lindane)	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Chlordane	<2.00		2.00		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Dieldrin	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
4,4'-DDD	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
4,4'-DDE	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
4,4'-DDT	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Endosulfan I	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Endosulfan II	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Endosulfan sulfate	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Endrin	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Endrin aldehyde	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Heptachlor	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Heptachlor epoxide	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Methoxychlor	<0.0320		0.0320		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
Toxaphene	<2.00		2.00		ug/L		03/27/12 11:33	03/28/12 16:50	1.00
<b>Surrogate</b>	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
Decachlorobiphenyl	89		45 - 130				03/27/12 11:33	03/28/12 16:50	1.00
Tetrachloro-meta-xylene	57		30 - 100				03/27/12 11:33	03/28/12 16:50	1.00

## Method: SW 7470A - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		03/27/12 10:40	03/27/12 13:33	1.00

## Method: SW 7010 - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	0.0282		0.00100		mg/L		03/26/12 10:48	04/03/12 23:44	1.00
Cadmium	0.00354		0.00100		mg/L		03/26/12 10:48	03/30/12 12:12	2.00
Lead	0.0208		0.00400		mg/L		03/26/12 10:48	03/27/12 13:14	1.00
Selenium	<0.00500		0.00500		mg/L		03/26/12 10:48	03/31/12 00:35	1.00

## Method: SW 6010C - Total Metals by SW 846 Series Methods

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	0.679		0.0100		mg/L		03/26/12 10:31	03/26/12 20:44	1.00
Chromium	0.0321		0.0200		mg/L		03/26/12 10:31	03/26/12 20:44	1.00
Silver	<0.0200		0.0200		mg/L		03/26/12 10:31	03/26/12 20:44	1.00

## Method: EPA 350.1 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	1.89		0.200		mg/L		03/28/12 09:41	03/28/12 15:11	1.00

## Method: SM 4500 NO3 E/00 - General Chemistry Parameters

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrate as N	<0.100		0.100		mg/L		03/23/12 13:43	03/23/12 13:43	1.00

## Method: 8151A D ug/L - Herbicides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-D	<1.0	*	1.0		ug/L		03/28/12 08:50	03/31/12 07:10	1

# Client Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-5**

**Lab Sample ID: CVC1446-20**

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

Matrix: Ground Water

**Method: 8151A D ug/L - Herbicides (GC) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Silvex (2,4,5-TP)	<1.0		1.0		ug/L		03/28/12 08:50	03/31/12 07:10	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
DCAA	61		30 - 129				03/28/12 08:50	03/31/12 07:10	1

# Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds

Matrix: Ground Water

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (75-120)	Toluene-d8 (80-120)	BFB (75-110)
CVC1446-05	SB-2	94	99	102
CVC1446-08	DUP-2	98	100	103
CVC1446-12	SB-3	100	96	99
CVC1446-15	SB-1	102	98	98
CVC1446-15 - RE1	SB-1	98	93	103
CVC1446-19	SB-4	98	101	101

### Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

## Method: SW 8260B - Volatile Organic Compounds

Matrix: Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (75-125)	Toluene-d8 (80-120)	BFB (80-120)
CVC1446-02	DUP-6	110	97	108
CVC1446-04	SB-2 2-4'	110	94	102
CVC1446-11	SB-3 0-2'	107	96	104
CVC1446-14	SB-1 14-16'	108	96	109
CVC1446-18	SB-4 12-14'	95	93	105

### Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

## Method: SW 8260B - Volatile Organic Compounds

Matrix: Solid/Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (75-125)	Toluene-d8 (80-120)	BFB (80-120)
12C1178-BLK1	Method Blank	107	94	105
12C1178-BS1	Lab Control Sample	108	93	107
12C1178-BSD1	Lab Control Sample Dup	112	97	106
12C1252-BLK1	Method Blank	96	94	103
12C1252-BS1	Lab Control Sample	98	93	106
12C1252-BSD1	Lab Control Sample Dup	101	98	110

### Surrogate Legend

DBFM = Dibromofluoromethane

Toluene-d8 = Toluene-d8

BFB = 4-Bromofluorobenzene

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Method: SW 8260B - Volatile Organic Compounds

Matrix: Water

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (75-120)	Toluene-d8 (80-120)	BFB (75-110)
CVC1446-09	Field Blank	98	101	96
CVC1446-10	Trip Blank	100	97	102
<b>Surrogate Legend</b>				
DBFM = Dibromofluoromethane				
Toluene-d8 = Toluene-d8				
BFB = 4-Bromofluorobenzene				

### Method: SW 8260B - Volatile Organic Compounds

Matrix: Water - NonPotable

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (75-120)	Toluene-d8 (80-120)	BFB (75-110)
12C1213-BLK1	Method Blank	104	100	100
12C1241-BLK1	Method Blank	95	94	101
<b>Surrogate Legend</b>				
DBFM = Dibromofluoromethane				
Toluene-d8 = Toluene-d8				
BFB = 4-Bromofluorobenzene				

### Method: SW 8260B - Volatile Organic Compounds

Matrix: Water - NonPotable

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		DBFM (75-120)	Toluene-d8 (80-120)	BFB (80-120)
12C1213-BS1	Lab Control Sample	96	101	97
12C1213-MS1	Matrix Spike	105	100	97
12C1213-MSD1	Matrix Spike Duplicate	102	97	98
12C1241-BS1	Lab Control Sample	100	93	106
12C1241-MS1	Matrix Spike	99	94	106
12C1241-MSD1	Matrix Spike Duplicate	100	94	102
<b>Surrogate Legend</b>				
DBFM = Dibromofluoromethane				
Toluene-d8 = Toluene-d8				
BFB = 4-Bromofluorobenzene				

### Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Ground Water

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-95)	NBZ (25-95)	TPH (25-120)
CVC1446-05	SB-2	39	45	61
CVC1446-08	DUP-2	42	49	66
CVC1446-12	SB-3	44	52	64
CVC1446-15	SB-1	67	39	91
CVC1446-19	SB-4	49	59	69

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Surrogate Legend

FBP = 2-Fluorobiphenyl  
NBZ = Nitrobenzene-d5  
TPH = Terphenyl-d14

## Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-105)	NBZ (20-105)	TPH (30-125)
CVC1446-03	SB-2 0-2'	35	36	39
CVC1446-06	DUP-1	35	35	42
CVC1446-11	SB-3 0-2'	32	32	39
CVC1446-13	SB-1 0-2'	64 RL1	63 RL1	69 RL1
CVC1446-14	SB-1 14-16'	58 RL1	34 RL1	105 RL1
CVC1446-17	SB-4 0-2'	45 RL1	47 RL1	51 RL1
CVC1446-18	SB-4 12-14'	43	44	47

### Surrogate Legend

FBP = 2-Fluorobiphenyl  
NBZ = Nitrobenzene-d5  
TPH = Terphenyl-d14

## Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Solid/Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-105)	NBZ (20-105)	TPH (30-125)
12C1035-BLK1	Method Blank	45	48	61

### Surrogate Legend

FBP = 2-Fluorobiphenyl  
NBZ = Nitrobenzene-d5  
TPH = Terphenyl-d14

## Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Solid/Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (20-105)	NBZ (20-100)	TPH (30-125)
12C1035-BS1	Lab Control Sample	46	46	76

### Surrogate Legend

FBP = 2-Fluorobiphenyl  
NBZ = Nitrobenzene-d5  
TPH = Terphenyl-d14

## Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Solid/Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-120)	NBZ (30-125)	TPH (35-130)
12C1035-MS1	Matrix Spike	41	38 Z6	76

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Method: SW 8270D - PAH Compounds by SIM GCMS (Continued)

Matrix: Solid/Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-120)	NBZ (30-125)	TPH (35-130)
12C1035-MSD1	Matrix Spike Duplicate	46	40 Z6	95
<b>Surrogate Legend</b>				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5				
TPH = Terphenyl-d14				

### Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Water

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-95)	NBZ (25-95)	TPH (25-120)
CVC1446-09	Field Blank	48	61	70
<b>Surrogate Legend</b>				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5				
TPH = Terphenyl-d14				

### Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Water - NonPotable

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (25-95)	NBZ (25-95)	TPH (25-120)
12C1144-BLK1	Method Blank	40	46	64
<b>Surrogate Legend</b>				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5				
TPH = Terphenyl-d14				

### Method: SW 8270D - PAH Compounds by SIM GCMS

Matrix: Water - NonPotable

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		FBP (20-100)	NBZ (20-100)	TPH (25-120)
12C1144-BS1	Lab Control Sample	44	53	64
12C1144-BSD1	Lab Control Sample Dup	49	56	76
<b>Surrogate Legend</b>				
FBP = 2-Fluorobiphenyl				
NBZ = Nitrobenzene-d5				
TPH = Terphenyl-d14				

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Ground Water

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Octacosane (55-150)
CVC1446-05	SB-2	84
CVC1446-08	DUP-2	131
CVC1446-12	SB-3	89
CVC1446-15	SB-1	244 ZX
CVC1446-19	SB-4	86

#### Surrogate Legend

Octacosane = Octacosane

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Octacosane (50-150)
CVC1446-04	SB-2 2-4'	84
CVC1446-07	DUP-3	88
CVC1446-11	SB-3 0-2'	111
CVC1446-14	SB-1 14-16'	193 ZX
CVC1446-18	SB-4 12-14'	91

#### Surrogate Legend

Octacosane = Octacosane

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Octacosane (50-150)
12C1086-BLK1	Method Blank	92

#### Surrogate Legend

Octacosane = Octacosane

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Octacosane (65-150)
12C1086-BS1	Lab Control Sample	86

#### Surrogate Legend

Octacosane = Octacosane

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Solid/Soil

Prep Type: Total

			Percent Surrogate Recovery (Acceptance Limits)	
		Octacosane	(55-150)	
Lab Sample ID	Client Sample ID			
12C1086-MS1	Matrix Spike	98		
12C1086-MSD1	Matrix Spike Duplicate	92		
<b>Surrogate Legend</b>				
Octacosane = Octacosane				

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Water

Prep Type: Total

			Percent Surrogate Recovery (Acceptance Limits)	
		Octacosane	(55-150)	
Lab Sample ID	Client Sample ID			
CVC1446-09	Field Blank	82		
<b>Surrogate Legend</b>				
Octacosane = Octacosane				

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Water - NonPotable

Prep Type: Total

			Percent Surrogate Recovery (Acceptance Limits)	
		Octacosane	(55-150)	
Lab Sample ID	Client Sample ID			
12C1093-BLK1	Method Blank	95		
<b>Surrogate Legend</b>				
Octacosane = Octacosane				

### Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

Matrix: Water - NonPotable

Prep Type: Total

			Percent Surrogate Recovery (Acceptance Limits)	
		Octacosane	(45-140)	
Lab Sample ID	Client Sample ID			
12C1093-BS1	Lab Control Sample	76		
12C1093-BSD1	Lab Control Sample Dup	82		
<b>Surrogate Legend</b>				
Octacosane = Octacosane				

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Ground Water

Prep Type: Total

			Percent Surrogate Recovery (Acceptance Limits)	
		Decachlorobiphenyl	Tetrachloro-meta-xylene	
Lab Sample ID	Client Sample ID	(45-130)	(30-100)	
CVC1446-15	SB-1	63	68	
CVC1446-19	SB-4	49	51	
CVC1446-20	DUP-5	89	57	
<b>Surrogate Legend</b>				
Decachlorobiphenyl = Decachlorobiphenyl				
Tetrachloro-metaxylene = Tetrachloro-metaxylene				

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Decachlorobiphenyl      Tetrachloro-meta-xylene

Lab Sample ID	Client Sample ID	(45-145)	(55-105)
CVC1446-01	DUP-4	53	39 ZX
CVC1446-13	SB-1 0-2'	91	64
CVC1446-17	SB-4 0-2'	70	56

#### Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Solid/Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Decachlorobiphenyl      Tetrachloro-meta-xylene

Lab Sample ID	Client Sample ID	(45-145)	(55-105)
12C1084-BLK1	Method Blank	80	61

#### Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Solid/Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Decachlorobiphenyl      Tetrachloro-meta-xylene

Lab Sample ID	Client Sample ID	(50-145)	(45-125)
12C1084-BS1	Lab Control Sample	82	68
12C1084-BS2	Lab Control Sample	84	76

#### Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Solid/Soil

Prep Type: Total

#### Percent Surrogate Recovery (Acceptance Limits)

Decachlorobiphenyl      Tetrachloro-meta-xylene

Lab Sample ID	Client Sample ID	(30-140)	(20-115)
12C1084-MS1	Matrix Spike	87	77
12C1084-MSD1	Matrix Spike Duplicate	121	101

#### Surrogate Legend

Decachlorobiphenyl = Decachlorobiphenyl

Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Water

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		Decachlorobiphenyl (45-130)	Tetrachloro-meta-xylene (30-100)
CVC1446-09	Field Blank	69	63

**Surrogate Legend**  
Decachlorobiphenyl = Decachlorobiphenyl  
Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Water - NonPotable

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		Decachlorobiphenyl (45-130)	Tetrachloro-meta-xylene (30-100)
12C1147-BLK1	Method Blank	84	60

**Surrogate Legend**  
Decachlorobiphenyl = Decachlorobiphenyl  
Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

### Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

Matrix: Water - NonPotable

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		Decachlorobiphenyl (40-135)	Tetrachloro-meta-xylene (35-110)
12C1147-BS1	Lab Control Sample	61	48
12C1147-BS2	Lab Control Sample	65	52
12C1147-BSD1	Lab Control Sample Dup	74	49

**Surrogate Legend**  
Decachlorobiphenyl = Decachlorobiphenyl  
Tetrachloro-meta-xylene = Tetrachloro-meta-xylene

### Method: 8151A D Dry ug/Kg - Herbicides (GC)

Matrix: Soil

Prep Type: Total

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCAA	(32-122)
145058-77	Method Blank	60	
145058-78	Lab Control Sample	57	
CVC1446-01	DUP-4	60	
CVC1446-13	SB-1 0-2'	58	
CVC1446-17	SB-4 0-2'	61	

**Surrogate Legend**  
DCAA = DCAA

## Surrogate Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## **Method: 8151A D ug/L - Herbicides (GC)**

## **Matrix: Ground Water**

### **Prep Type: Total**

Lab Sample ID	Client Sample ID	DCAA (30-129)	Percent Surrogate Recovery (Acceptance Limits)					
			_____	_____	_____	_____	_____	_____
CVC1446-15	SB-1	36	_____	_____	_____	_____	_____	_____
CVC1446-19	SB-4	80	_____	_____	_____	_____	_____	_____
CVC1446-20	DUP-5	61	_____	_____	_____	_____	_____	_____

## **Surrogate Legend**

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DCAA = DCAA

## **Method: 8151A D ug/L - Herbicides (GC)**

## Matrix: Water

### **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)					
		DCAA					
Lab Sample ID	Client Sample ID	(30-129)					
144745-61	Method Blank	72					
144745-62	Lab Control Sample	81					
144745-63	Lab Control Sample Dup	85					
CVC1446-09	Field Blank	72					

### Surrogate Legend

**Surrogate Leg**

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# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

## Method: SW 8260B - Volatile Organic Compounds

**Lab Sample ID: 12C1178-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1178**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1178\_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acetone	<2500		2500		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Benzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Bromobenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Bromochloromethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Bromodichloromethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Bromoform	<500		500		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Bromomethane	<1000		1000		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
n-Butylbenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
sec-Butylbenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
tert-Butylbenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Carbon disulfide	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Carbon Tetrachloride	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Chlorobenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Chlorodibromomethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Chloroethane	<1000		1000		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Chloroform	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Chloromethane	<1000		1000		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
2-Chlorotoluene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
4-Chlorotoluene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Dibromomethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,3-Dichlorobenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,4-Dichlorobenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Dichlorodifluoromethane	<750		750		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,1-Dichloroethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,2-Dichloroethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,1-Dichloroethene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
cis-1,2-Dichloroethene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
trans-1,2-Dichloroethene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,2-Dichloropropane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,3-Dichloropropane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
2,2-Dichloropropane	<1000		1000		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,1-Dichloropropene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
cis-1,3-Dichloropropene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
trans-1,3-Dichloropropene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Ethylbenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Hexachlorobutadiene	<1250		1250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Hexane	<1250		1250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Isopropylbenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
p-Isopropyltoluene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Methylene Chloride	<2500		2500		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Methyl tert-Butyl Ether	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Naphthalene	<1250		1250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
n-Propylbenzene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
Styrene	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet	03/27/12 00:00	03/27/12 09:30		50.0

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1178-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1178**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1178\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier					Prepared	Analyzed	Dil Fac
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Tetrachloroethene	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Toluene	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,1,1-Trichloroethane	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,1,2-Trichloroethane	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Trichloroethene	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Trichlorofluoromethane	<1000		1000		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,2,3-Trichloropropane	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,2,4-Trimethylbenzene	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
1,3,5-Trimethylbenzene	<250		250		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Vinyl chloride	<750		750		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Xylenes, total	<750		750		ug/kg wet		03/27/12 00:00	03/27/12 09:30	50.0
Surrogate	Blank	Blank	Limits	%Recovery	Qualifier	Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
Dibromofluoromethane	107		75 - 125			03/27/12 00:00	03/27/12 09:30	50.0	
Toluene-d8	94		80 - 120			03/27/12 00:00	03/27/12 09:30	50.0	
4-Bromofluorobenzene	105		80 - 120			03/27/12 00:00	03/27/12 09:30	50.0	

**Lab Sample ID: 12C1178-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1178**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1178\_P**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits
	Added	Result	Qualifier				
Acetone	998	1660	L1	ug/kg wet	166	65 - 150	
Benzene	998	1100		ug/kg wet	111	55 - 135	
Bromobenzene	998	1030		ug/kg wet	103	65 - 125	
Bromochloromethane	998	1240		ug/kg wet	125	65 - 130	
Bromodichloromethane	998	1100		ug/kg wet	110	65 - 130	
Bromoform	998	1060		ug/kg wet	106	50 - 135	
Bromomethane	998	672		ug/kg wet	67	45 - 135	
2-Butanone (MEK)	998	1150		ug/kg wet	115	50 - 145	
n-Butylbenzene	998	1020		ug/kg wet	102	55 - 130	
sec-Butylbenzene	998	985		ug/kg wet	99	60 - 125	
tert-Butylbenzene	998	967		ug/kg wet	97	55 - 125	
Carbon disulfide	998	986		ug/kg wet	99	40 - 135	
Carbon Tetrachloride	998	986		ug/kg wet	99	55 - 130	
Chlorobenzene	998	1060		ug/kg wet	106	60 - 120	
Chlorodibromomethane	998	1080		ug/kg wet	108	55 - 130	
Chloroethane	998	658		ug/kg wet	66	50 - 145	
Chloroform	998	1130		ug/kg wet	114	65 - 130	
Chloromethane	998	802		ug/kg wet	80	40 - 135	
2-Chlorotoluene	998	1040		ug/kg wet	104	60 - 125	
4-Chlorotoluene	998	1060		ug/kg wet	106	60 - 125	
1,2-Dibromo-3-chloropropane	998	767		ug/kg wet	77	50 - 140	
1,2-Dibromoethane (EDB)	998	1070		ug/kg wet	107	55 - 140	
Dibromomethane	998	1070		ug/kg wet	107	65 - 135	
1,2-Dichlorobenzene	998	984		ug/kg wet	99	65 - 120	

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1178-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1178**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1178\_P**

**%Rec.**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
1,3-Dichlorobenzene	998	1010		ug/kg wet	101	60 - 125	
1,4-Dichlorobenzene	998	991		ug/kg wet	99	60 - 125	
Dichlorodifluoromethane	998	411		ug/kg wet	41	40 - 135	
1,1-Dichloroethane	998	1110		ug/kg wet	112	55 - 135	
1,2-Dichloroethane	998	1200		ug/kg wet	120	60 - 140	
1,1-Dichloroethene	998	840		ug/kg wet	84	50 - 145	
cis-1,2-Dichloroethene	998	1200		ug/kg wet	120	60 - 135	
trans-1,2-Dichloroethene	998	1130		ug/kg wet	113	55 - 135	
1,2-Dichloropropane	998	1100		ug/kg wet	110	55 - 130	
1,3-Dichloropropane	998	1100		ug/kg wet	110	55 - 140	
2,2-Dichloropropane	998	1140		ug/kg wet	114	40 - 135	
1,1-Dichloropropene	998	1190		ug/kg wet	119	55 - 130	
cis-1,3-Dichloropropene	998	1170	L	ug/kg wet	117	50 - 115	
trans-1,3-Dichloropropene	998	1040		ug/kg wet	104	55 - 130	
Ethylbenzene	998	1010		ug/kg wet	101	60 - 125	
Hexachlorobutadiene	998	1020		ug/kg wet	102	40 - 135	
Hexane	998	804		ug/kg wet	81	45 - 140	
Isopropylbenzene	998	1050		ug/kg wet	105	60 - 125	
p-Isopropyltoluene	998	984		ug/kg wet	99	60 - 120	
Methylene Chloride	998	1270		ug/kg wet	127	55 - 145	
Methyl tert-Butyl Ether	998	1210		ug/kg wet	121	55 - 130	
Naphthalene	998	805		ug/kg wet	81	50 - 130	
n-Propylbenzene	998	1040		ug/kg wet	104	50 - 125	
Styrene	998	988		ug/kg wet	99	60 - 125	
1,1,1,2-Tetrachloroethane	998	1020		ug/kg wet	103	65 - 125	
1,1,2,2-Tetrachloroethane	998	944		ug/kg wet	95	60 - 125	
Tetrachloroethene	998	1060		ug/kg wet	106	55 - 125	
Toluene	998	1030		ug/kg wet	103	60 - 130	
1,2,3-Trichlorobenzene	998	980		ug/kg wet	98	50 - 130	
1,2,4-Trichlorobenzene	998	996		ug/kg wet	100	45 - 135	
1,1,1-Trichloroethane	998	1010		ug/kg wet	101	60 - 125	
1,1,2-Trichloroethane	998	1080		ug/kg wet	108	55 - 135	
Trichloroethene	998	1040		ug/kg wet	104	60 - 130	
Trichlorofluoromethane	998	853		ug/kg wet	85	50 - 145	
1,2,3-Trichloropropane	998	1000		ug/kg wet	100	50 - 145	
1,2,4-Trimethylbenzene	998	1050		ug/kg wet	105	55 - 125	
1,3,5-Trimethylbenzene	998	1030		ug/kg wet	103	50 - 130	
Vinyl chloride	998	956		ug/kg wet	96	45 - 140	
Xylenes, total	2990	3160		ug/kg wet	106	50 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane	108		75 - 125
Toluene-d8	93		80 - 120
4-Bromofluorobenzene	107		80 - 120

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1178-BSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1178**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1178\_P**

Analyte	Spike	LCS Dup	LCS Dup	Unit	D	%Rec.	Limits	RPD	RPD Limit
	Added	Result	Qualifier						
Acetone	970	1270		ug/kg wet	131	65 - 150	27	40	
Benzene	970	1000		ug/kg wet	103	55 - 135	10	25	
Bromobenzene	970	991		ug/kg wet	102	65 - 125	3	35	
Bromochloromethane	970	1100		ug/kg wet	114	65 - 130	12	35	
Bromodichloromethane	970	1020		ug/kg wet	105	65 - 130	7	30	
Bromoform	970	854		ug/kg wet	88	50 - 135	21	40	
Bromomethane	970	599		ug/kg wet	62	45 - 135	11	40	
2-Butanone (MEK)	970	952		ug/kg wet	98	50 - 145	19	40	
n-Butylbenzene	970	939		ug/kg wet	97	55 - 130	8	30	
sec-Butylbenzene	970	909		ug/kg wet	94	60 - 125	8	30	
tert-Butylbenzene	970	907		ug/kg wet	94	55 - 125	6	25	
Carbon disulfide	970	905		ug/kg wet	93	40 - 135	9	40	
Carbon Tetrachloride	970	924		ug/kg wet	95	55 - 130	7	30	
Chlorobenzene	970	975		ug/kg wet	100	60 - 120	8	30	
Chlorodibromomethane	970	969		ug/kg wet	100	55 - 130	11	40	
Chloroethane	970	598		ug/kg wet	62	50 - 145	10	40	
Chloroform	970	1060		ug/kg wet	109	65 - 130	6	30	
Chloromethane	970	737		ug/kg wet	76	40 - 135	8	40	
2-Chlorotoluene	970	986		ug/kg wet	102	60 - 125	5	35	
4-Chlorotoluene	970	979		ug/kg wet	101	60 - 125	8	35	
1,2-Dibromo-3-chloropropane	970	725		ug/kg wet	75	50 - 140	6	35	
1,2-Dibromoethane (EDB)	970	926		ug/kg wet	95	55 - 140	14	30	
Dibromomethane	970	932		ug/kg wet	96	65 - 135	13	30	
1,2-Dichlorobenzene	970	918		ug/kg wet	95	65 - 120	7	30	
1,3-Dichlorobenzene	970	914		ug/kg wet	94	60 - 125	9	30	
1,4-Dichlorobenzene	970	915		ug/kg wet	94	60 - 125	8	30	
Dichlorodifluoromethane	970	396		ug/kg wet	41	40 - 135	4	35	
1,1-Dichloroethane	970	1040		ug/kg wet	108	55 - 135	7	40	
1,2-Dichloroethane	970	1110		ug/kg wet	114	60 - 140	8	30	
1,1-Dichloroethene	970	787		ug/kg wet	81	50 - 145	7	40	
cis-1,2-Dichloroethene	970	1160		ug/kg wet	120	60 - 135	3	40	
trans-1,2-Dichloroethene	970	1010		ug/kg wet	104	55 - 135	11	40	
1,2-Dichloropropane	970	1030		ug/kg wet	106	55 - 130	6	30	
1,3-Dichloropropane	970	995		ug/kg wet	103	55 - 140	10	30	
2,2-Dichloropropane	970	1050		ug/kg wet	108	40 - 135	8	45	
1,1-Dichloropropene	970	1090		ug/kg wet	112	55 - 130	9	30	
cis-1,3-Dichloropropene	970	1050		ug/kg wet	108	50 - 115	11	35	
trans-1,3-Dichloropropene	970	932		ug/kg wet	96	55 - 130	11	30	
Ethylbenzene	970	940		ug/kg wet	97	60 - 125	7	30	
Hexachlorobutadiene	970	854		ug/kg wet	88	40 - 135	18	35	
Hexane	970	757		ug/kg wet	78	45 - 140	6	35	
Isopropylbenzene	970	975		ug/kg wet	101	60 - 125	7	35	
p-Isopropyltoluene	970	898		ug/kg wet	93	60 - 120	9	30	
Methylene Chloride	970	1120		ug/kg wet	115	55 - 145	13	40	
Methyl tert-Butyl Ether	970	1070		ug/kg wet	111	55 - 130	12	30	
Naphthalene	970	754		ug/kg wet	78	50 - 130	7	30	
n-Propylbenzene	970	975		ug/kg wet	101	50 - 125	6	35	
Styrene	970	931		ug/kg wet	96	60 - 125	6	35	
1,1,1,2-Tetrachloroethane	970	951		ug/kg wet	98	65 - 125	7	30	

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1178-BSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1178**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1178\_P**

Analyte	Spike	LCS Dup	LCS Dup	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
1,1,2,2-Tetrachloroethane	970	873		ug/kg wet	90	60 - 125	8	35	
Tetrachloroethene	970	975		ug/kg wet	100	55 - 125	8	40	
Toluene	970	955		ug/kg wet	98	60 - 130	8	35	
1,2,3-Trichlorobenzene	970	925		ug/kg wet	95	50 - 130	6	35	
1,2,4-Trichlorobenzene	970	918		ug/kg wet	95	45 - 135	8	35	
1,1,1-Trichloroethane	970	932		ug/kg wet	96	60 - 125	8	30	
1,1,2-Trichloroethane	970	1010		ug/kg wet	104	55 - 135	7	30	
Trichloroethene	970	956		ug/kg wet	99	60 - 130	8	30	
Trichlorofluoromethane	970	814		ug/kg wet	84	50 - 145	5	40	
1,2,3-Trichloropropane	970	915		ug/kg wet	94	50 - 145	9	35	
1,2,4-Trimethylbenzene	970	994		ug/kg wet	102	55 - 125	5	35	
1,3,5-Trimethylbenzene	970	980		ug/kg wet	101	50 - 130	5	35	
Vinyl chloride	970	867		ug/kg wet	89	45 - 140	10	40	
Xylenes, total	2910	2960		ug/kg wet	102	50 - 130	7	30	

	LCS Dup	LCS Dup	
Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane	112		75 - 125
Toluene-d8	97		80 - 120
4-Bromofluorobenzene	106		80 - 120

**Lab Sample ID: 12C1213-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<1.79		10.0	1.79	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Bromochloromethane	<0.120		5.00	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Bromodichloromethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Bromoform	<0.140		5.00	0.140	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Bromomethane	<0.220		4.00	0.220	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Carbon disulfide	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Carbon Tetrachloride	<0.240	CIN	2.00	0.240	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Chloroethane	0.180	J	4.00	0.150	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 08:09	1.00

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1213-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1-Dichloroethene	<0.150		2.00	0.150	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
cis-1,2-Dichloroethene	<0.130		1.00	0.130	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
2,2-Dichloropropane	<0.180		4.00	0.180	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
cis-1,3-Dichloropropene	<0.150	CIN	5.00	0.150	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Hexachlorobutadiene	0.520	J	5.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
p-Isopropyltoluene	<0.140		1.00	0.140	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Methylene Chloride	<0.170		5.00	0.170	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Naphthalene	<0.370		5.00	0.370	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Toluene	<0.150		1.00	0.150	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2,3-Trichlorobenzene	0.200	J	5.00	0.160	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2,4-Trichlorobenzene	<0.160		5.00	0.160	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/26/12 00:00	03/26/12 08:09	1.00
Xylenes, total	<0.130		3.00	0.130	ug/L		03/26/12 00:00	03/26/12 08:09	1.00

Surrogate	Blank	Blank	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane			104		75 - 120			
Toluene-d8			100		80 - 120			
4-Bromofluorobenzene			100		75 - 110			

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1213-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Acetone	20.0	20.2		ug/L	101	60 - 150		
Benzene	20.0	17.4		ug/L	87	70 - 130		
Bromobenzene	20.0	17.1		ug/L	86	75 - 130		
Bromochloromethane	20.0	18.6		ug/L	93	65 - 145		
Bromodichloromethane	20.0	17.4		ug/L	87	60 - 130		
Bromoform	20.0	17.1		ug/L	85	30 - 125		
Bromomethane	20.0	16.7		ug/L	84	35 - 130		
2-Butanone (MEK)	20.0	17.9		ug/L	90	55 - 140		
n-Butylbenzene	20.0	18.1		ug/L	90	55 - 135		
sec-Butylbenzene	20.0	18.7		ug/L	93	65 - 135		
tert-Butylbenzene	20.0	18.1		ug/L	90	60 - 135		
Carbon disulfide	20.0	17.5		ug/L	88	40 - 130		
Carbon Tetrachloride	20.0	18.6	CIN	ug/L	93	55 - 130		
Chlorobenzene	20.0	17.2		ug/L	86	75 - 125		
Chlorodibromomethane	20.0	16.9		ug/L	84	45 - 125		
Chloroethane	20.0	17.3	B	ug/L	86	55 - 135		
Chloroform	20.0	15.7		ug/L	79	70 - 125		
Chloromethane	20.0	14.5		ug/L	72	30 - 125		
2-Chlorotoluene	20.0	17.8		ug/L	89	75 - 135		
4-Chlorotoluene	20.0	17.6		ug/L	88	70 - 140		
1,2-Dibromo-3-chloropropane	20.0	14.6		ug/L	73	35 - 130		
1,2-Dibromoethane (EDB)	20.0	17.4		ug/L	87	70 - 135		
Dibromomethane	20.0	17.6		ug/L	88	75 - 130		
1,2-Dichlorobenzene	20.0	17.0		ug/L	85	65 - 135		
1,3-Dichlorobenzene	20.0	16.4		ug/L	82	70 - 130		
1,4-Dichlorobenzene	20.0	16.8		ug/L	84	60 - 140		
Dichlorodifluoromethane	20.0	14.4		ug/L	72	35 - 130		
1,1-Dichloroethane	20.0	17.2		ug/L	86	60 - 130		
1,2-Dichloroethane	20.0	17.3		ug/L	87	65 - 140		
1,1-Dichloroethene	20.0	15.2		ug/L	76	60 - 135		
cis-1,2-Dichloroethene	20.0	17.0		ug/L	85	70 - 135		
trans-1,2-Dichloroethene	20.0	16.8		ug/L	84	60 - 145		
1,2-Dichloropropane	20.0	17.5		ug/L	88	65 - 130		
1,3-Dichloropropane	20.0	16.7		ug/L	84	75 - 125		
2,2-Dichloropropane	20.0	18.5		ug/L	93	25 - 120		
1,1-Dichloropropene	20.0	19.2		ug/L	96	60 - 140		
cis-1,3-Dichloropropene	20.0	19.4	CIN	ug/L	97	30 - 120		
trans-1,3-Dichloropropene	20.0	16.6		ug/L	83	35 - 120		
Ethylbenzene	20.0	17.8		ug/L	89	70 - 130		
Hexachlorobutadiene	20.0	17.3	B	ug/L	86	60 - 135		
Hexane	20.0	18.6		ug/L	93	40 - 135		
Isopropylbenzene	20.0	18.7		ug/L	93	70 - 125		
p-Isopropyltoluene	20.0	17.9		ug/L	89	60 - 140		
Methylene Chloride	20.0	16.4		ug/L	82	55 - 145		
Methyl tert-Butyl Ether	20.0	18.0		ug/L	90	50 - 135		
Naphthalene	20.0	16.6		ug/L	83	40 - 135		
n-Propylbenzene	20.0	18.7		ug/L	93	70 - 135		
Styrene	20.0	17.5		ug/L	87	70 - 130		
1,1,1,2-Tetrachloroethane	20.0	17.9		ug/L	90	65 - 120		

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1213-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.
		Result	Qualifier				
1,1,2,2-Tetrachloroethane	20.0	16.9		ug/L		85	65 - 130
Tetrachloroethene	20.0	17.1		ug/L		86	70 - 135
Toluene	20.0	17.7		ug/L		88	70 - 135
1,2,3-Trichlorobenzene	20.0	17.0	B	ug/L		85	55 - 130
1,2,4-Trichlorobenzene	20.0	17.0		ug/L		85	40 - 135
1,1,1-Trichloroethane	20.0	18.2		ug/L		91	60 - 125
1,1,2-Trichloroethane	20.0	16.8		ug/L		84	75 - 125
Trichloroethene	20.0	17.6		ug/L		88	70 - 130
Trichlorofluoromethane	20.0	17.1		ug/L		85	55 - 145
1,2,3-Trichloropropane	20.0	17.9		ug/L		89	60 - 150
1,2,4-Trimethylbenzene	20.0	17.8		ug/L		89	70 - 140
1,3,5-Trimethylbenzene	20.0	18.7		ug/L		94	70 - 140
Vinyl chloride	20.0	16.1		ug/L		81	45 - 135
Xylenes, total	60.0	54.2		ug/L		90	70 - 130

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Dibromofluoromethane	96		75 - 120
Toluene-d8	101		80 - 120
4-Bromofluorobenzene	97		80 - 120

**Lab Sample ID: 12C1213-MS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec.
Acetone	0.240		20.0	21.3		ug/L		105	45 - 150
Benzene	2.61		20.0	17.8		ug/L		76	50 - 130
Bromobenzene	<21.0		20.0	17.4		ug/L		87	60 - 135
Bromoform	0.0600		20.0	18.8		ug/L		94	55 - 145
Bromochloromethane	0.0500		20.0	17.7		ug/L		88	50 - 130
Bromodichloromethane	0.0300		20.0	16.2		ug/L		81	30 - 125
Bromomethane	0.0400		20.0	15.0		ug/L		75	30 - 130
2-Butanone (MEK)	0.0300		20.0	16.5		ug/L		82	45 - 140
n-Butylbenzene	0.0600		20.0	17.7		ug/L		88	40 - 135
sec-Butylbenzene	0.0200		20.0	18.4		ug/L		92	40 - 135
tert-Butylbenzene	0.0100		20.0	17.8		ug/L		89	40 - 135
Carbon disulfide	0.0300		20.0	18.4		ug/L		92	30 - 130
Carbon Tetrachloride	<24.0		20.0	19.0	CIN	ug/L		95	35 - 130
Chlorobenzene	<19.0		20.0	17.2		ug/L		86	60 - 130
Chlorodibromomethane	0.0200		20.0	16.2		ug/L		81	35 - 130
Chloroethane	0.220		20.0	17.8	B	ug/L		88	40 - 135
Chloroform	0.270		20.0	17.0		ug/L		84	55 - 125
Chloromethane	0.0900		20.0	14.4		ug/L		71	25 - 125
2-Chlorotoluene	0.0400		20.0	17.7		ug/L		88	55 - 140
4-Chlorotoluene	<13.0		20.0	16.9		ug/L		85	50 - 140
1,2-Dibromo-3-chloropropane	<12.0		20.0	15.5		ug/L		78	35 - 130
1,2-Dibromoethane (EDB)	<13.0		20.0	16.7		ug/L		84	55 - 140
Dibromomethane	<18.0		20.0	16.8		ug/L		84	60 - 135
1,2-Dichlorobenzene	0.0100		20.0	16.0		ug/L		80	55 - 140

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1213-MS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier	Added	Result	Qualifier					
1,3-Dichlorobenzene	0.0300		20.0	16.3		ug/L	82	55 - 135		
1,4-Dichlorobenzene	0.0600		20.0	16.3		ug/L	81	55 - 140		
Dichlorodifluoromethane	<20.0		20.0	14.8		ug/L	74	15 - 130		
1,1-Dichloroethane	0.0300		20.0	17.6		ug/L	88	50 - 130		
1,2-Dichloroethane	<18.0		20.0	18.2		ug/L	91	55 - 140		
1,1-Dichloroethene	<15.0		20.0	16.3		ug/L	81	35 - 135		
cis-1,2-Dichloroethene	0.0400		20.0	18.5		ug/L	92	45 - 135		
trans-1,2-Dichloroethene	<21.0		20.0	17.6		ug/L	88	45 - 145		
1,2-Dichloropropane	<87.0		20.0	16.6		ug/L	83	55 - 130		
1,3-Dichloropropane	<16.0		20.0	15.8		ug/L	79	60 - 135		
2,2-Dichloropropane	0.0200		20.0	18.4		ug/L	92	20 - 120		
1,1-Dichloropropene	<15.0		20.0	20.5		ug/L	102	40 - 140		
cis-1,3-Dichloropropene	<15.0		20.0	18.8	CIN	ug/L	94	25 - 120		
trans-1,3-Dichloropropene	<22.0		20.0	16.6		ug/L	83	25 - 120		
Ethylbenzene	0.0800		20.0	17.6		ug/L	87	45 - 135		
Hexachlorobutadiene	0.0500		20.0	17.6	B	ug/L	88	40 - 135		
Hexane	0.0500		20.0	20.7		ug/L	103	25 - 135		
Isopropylbenzene	0.0100		20.0	18.1		ug/L	91	45 - 125		
p-Isopropyltoluene	0.0500		20.0	17.5		ug/L	87	40 - 140		
Methylene Chloride	0.0800		20.0	16.5		ug/L	82	45 - 145		
Methyl tert-Butyl Ether	<16.0		20.0	17.8		ug/L	89	40 - 135		
Naphthalene	1.18		20.0	15.8		ug/L	73	40 - 135		
n-Propylbenzene	0.0600		20.0	18.4		ug/L	92	45 - 140		
Styrene	1.33		20.0	17.4		ug/L	80	40 - 135		
1,1,1,2-Tetrachloroethane	<21.0		20.0	18.2		ug/L	91	50 - 130		
1,1,2,2-Tetrachloroethane	<10.0		20.0	15.8		ug/L	79	55 - 140		
Tetrachloroethene	0.0400		20.0	18.0		ug/L	90	40 - 135		
Toluene	0.660		20.0	17.4		ug/L	84	45 - 135		
1,2,3-Trichlorobenzene	0.0500		20.0	15.3	B	ug/L	76	50 - 140		
1,2,4-Trichlorobenzene	0.0300		20.0	15.3		ug/L	76	40 - 135		
1,1,1-Trichloroethane	<12.0		20.0	18.8		ug/L	94	40 - 125		
1,1,2-Trichloroethane	<12.0		20.0	15.9		ug/L	79	60 - 130		
Trichloroethene	<19.0		20.0	17.6		ug/L	88	50 - 130		
Trichlorofluoromethane	0.0200		20.0	18.7		ug/L	93	40 - 145		
1,2,3-Trichloropropane	<19.0		20.0	16.7		ug/L	83	55 - 150		
1,2,4-Trimethylbenzene	0.0400		20.0	17.3		ug/L	86	45 - 140		
1,3,5-Trimethylbenzene	0.0300		20.0	18.4		ug/L	92	45 - 140		
Vinyl chloride	<10.0		20.0	17.3		ug/L	87	30 - 135		
Xylenes, total	<13.0		60.0	51.5		ug/L	86	40 - 135		

Surrogate	Matrix Spike	Matrix Spike	Limits
	%Recovery	Qualifier	
Dibromofluoromethane	105		75 - 120
Toluene-d8	100		80 - 120
4-Bromofluorobenzene	97		80 - 120

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1213-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	D	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier					
Acetone	0.240		20.0	20.6		ug/L	102	45 - 150	3	35
Benzene	2.61		20.0	17.7		ug/L	76	50 - 130	0.4	20
Bromobenzene	<21.0		20.0	16.6		ug/L	83	60 - 135	4	15
Bromochloromethane	0.0600		20.0	19.2		ug/L	96	55 - 145	2	25
Bromodichloromethane	0.0500		20.0	18.1		ug/L	90	50 - 130	2	15
Bromoform	0.0300		20.0	17.1		ug/L	85	30 - 125	5	25
Bromomethane	0.0400		20.0	17.2		ug/L	86	30 - 130	13	35
2-Butanone (MEK)	0.0300		20.0	17.9		ug/L	89	45 - 140	8	35
n-Butylbenzene	0.0600		20.0	18.8		ug/L	94	40 - 135	6	20
sec-Butylbenzene	0.0200		20.0	18.9		ug/L	95	40 - 135	3	20
tert-Butylbenzene	0.0100		20.0	18.8		ug/L	94	40 - 135	5	20
Carbon disulfide	0.0300		20.0	18.9		ug/L	94	30 - 130	2	30
Carbon Tetrachloride	<24.0		20.0	18.1	CIN	ug/L	90	35 - 130	5	20
Chlorobenzene	<19.0		20.0	17.6		ug/L	88	60 - 130	3	15
Chlorodibromomethane	0.0200		20.0	18.3		ug/L	91	35 - 130	12	20
Chloroethane	0.220		20.0	17.5	B	ug/L	86	40 - 135	2	20
Chloroform	0.270		20.0	17.3		ug/L	85	55 - 125	2	15
Chloromethane	0.0900		20.0	14.1		ug/L	70	25 - 125	2	25
2-Chlorotoluene	0.0400		20.0	17.2		ug/L	86	55 - 140	3	20
4-Chlorotoluene	<13.0		20.0	18.3		ug/L	91	50 - 140	8	20
1,2-Dibromo-3-chloropropane	<12.0		20.0	15.9		ug/L	80	35 - 130	3	30
1,2-Dibromoethane (EDB)	<13.0		20.0	17.8		ug/L	89	55 - 140	7	20
Dibromomethane	<18.0		20.0	18.0		ug/L	90	60 - 135	7	15
1,2-Dichlorobenzene	0.0100		20.0	16.9		ug/L	85	55 - 140	5	20
1,3-Dichlorobenzene	0.0300		20.0	17.5		ug/L	87	55 - 135	7	15
1,4-Dichlorobenzene	0.0600		20.0	16.7		ug/L	83	55 - 140	2	15
Dichlorodifluoromethane	<20.0		20.0	14.3		ug/L	72	15 - 130	3	25
1,1-Dichloroethane	0.0300		20.0	17.6		ug/L	88	50 - 130	0.3	25
1,2-Dichloroethane	<18.0		20.0	18.6		ug/L	93	55 - 140	2	15
1,1-Dichloroethene	<15.0		20.0	15.8		ug/L	79	35 - 135	3	30
cis-1,2-Dichloroethene	0.0400		20.0	18.2		ug/L	91	45 - 135	1	20
trans-1,2-Dichloroethene	<21.0		20.0	18.1		ug/L	90	45 - 145	3	35
1,2-Dichloropropane	<87.0		20.0	17.2		ug/L	86	55 - 130	4	15
1,3-Dichloropropane	<16.0		20.0	17.4		ug/L	87	60 - 135	10	15
2,2-Dichloropropane	0.0200		20.0	19.7		ug/L	98	20 - 120	7	35
1,1-Dichloropropene	<15.0		20.0	20.1		ug/L	101	40 - 140	2	20
cis-1,3-Dichloropropene	<15.0		20.0	20.3	CIN	ug/L	102	25 - 120	8	20
trans-1,3-Dichloropropene	<22.0		20.0	17.5		ug/L	88	25 - 120	5	20
Ethylbenzene	0.0800		20.0	18.3		ug/L	91	45 - 135	4	20
Hexachlorobutadiene	0.0500		20.0	18.9	B	ug/L	94	40 - 135	7	30
Hexane	0.0500		20.0	19.2		ug/L	96	25 - 135	8	35
Isopropylbenzene	0.0100		20.0	18.1		ug/L	91	45 - 125	0.06	15
p-Isopropyltoluene	0.0500		20.0	18.3		ug/L	91	40 - 140	4	20
Methylene Chloride	0.0800		20.0	16.8		ug/L	84	45 - 145	2	30
Methyl tert-Butyl Ether	<16.0		20.0	19.5		ug/L	98	40 - 135	9	25
Naphthalene	1.18		20.0	18.1		ug/L	85	40 - 135	14	20
n-Propylbenzene	0.0600		20.0	18.2		ug/L	91	45 - 140	0.8	20
Styrene	1.33		20.0	17.7		ug/L	82	40 - 135	2	20
1,1,1,2-Tetrachloroethane	<21.0		20.0	18.0		ug/L	90	50 - 130	1	20

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1213-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1213**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1213\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,2,2-Tetrachloroethane	<10.0		20.0	18.0	B	ug/L	90	55 - 140	13	20	
Tetrachloroethene	0.0400		20.0	18.3		ug/L	91	40 - 135	1	20	
Toluene	0.660		20.0	18.0		ug/L	87	45 - 135	4	20	
1,2,3-Trichlorobenzene	0.0500		20.0	17.8	B	ug/L	89	50 - 140	15	25	
1,2,4-Trichlorobenzene	0.0300		20.0	17.0		ug/L	85	40 - 135	11	25	
1,1,1-Trichloroethane	<12.0		20.0	19.2		ug/L	96	40 - 125	2	20	
1,1,2-Trichloroethane	<12.0		20.0	18.0		ug/L	90	60 - 130	13	15	
Trichloroethene	<19.0		20.0	18.0		ug/L	90	50 - 130	2	20	
Trichlorofluoromethane	0.0200		20.0	18.2		ug/L	91	40 - 145	2	25	
1,2,3-Trichloropropane	<19.0		20.0	16.9		ug/L	84	55 - 150	1	20	
1,2,4-Trimethylbenzene	0.0400		20.0	18.6		ug/L	93	45 - 140	7	20	
1,3,5-Trimethylbenzene	0.0300		20.0	18.5		ug/L	92	45 - 140	0.6	20	
Vinyl chloride	<10.0		20.0	17.0		ug/L	85	30 - 135	2	20	
Xylenes, total	<13.0		60.0	52.8		ug/L	88	40 - 135	2	20	

**Matrix Spike Dup**    **Matrix Spike Dup**

Surrogate	Matrix Spike Dup	Matrix Spike Dup	Limits
	%Recovery	Qualifier	
Dibromofluoromethane	102		75 - 120
Toluene-d8	97		80 - 120
4-Bromofluorobenzene	98		80 - 120

**Lab Sample ID: 12C1241-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<1.79	CIN	10.0	1.79	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Benzene	<0.110		0.500	0.110	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Bromobenzene	<0.210		1.00	0.210	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Bromochloromethane	<0.120		5.00	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Bromodichloromethane	<0.120		1.00	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Bromoform	<0.140		5.00	0.140	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Bromomethane	0.250	CIN J	4.00	0.220	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
2-Butanone (MEK)	<0.470		10.0	0.470	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
n-Butylbenzene	<0.370		1.00	0.370	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
sec-Butylbenzene	<0.200		1.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
tert-Butylbenzene	<0.120		1.00	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Carbon disulfide	0.350	J	1.00	0.150	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Carbon Tetrachloride	<0.240		2.00	0.240	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Chlorobenzene	<0.190		1.00	0.190	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Chlorodibromomethane	<0.200		5.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Chloroethane	0.180	J	4.00	0.150	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Chloroform	<0.280		1.00	0.280	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Chloromethane	<0.310		3.00	0.310	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
2-Chlorotoluene	<0.120		1.00	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
4-Chlorotoluene	<0.130		1.00	0.130	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2-Dibromo-3-chloropropane	<0.120		10.0	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2-Dibromoethane (EDB)	<0.130		10.0	0.130	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Dibromomethane	<0.180		1.00	0.180	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2-Dichlorobenzene	<0.140		1.00	0.140	ug/L		03/28/12 00:00	03/28/12 06:56	1.00

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1241-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3-Dichlorobenzene	<0.170		1.00	0.170	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,4-Dichlorobenzene	<0.200		1.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Dichlorodifluoromethane	<0.200		3.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1-Dichloroethane	<0.210		1.00	0.210	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2-Dichloroethane	<0.180		1.00	0.180	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1-Dichloroethene	<0.150		2.00	0.150	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
cis-1,2-Dichloroethene	0.150	J	1.00	0.130	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
trans-1,2-Dichloroethene	<0.210		1.00	0.210	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2-Dichloropropane	<0.870		1.00	0.870	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,3-Dichloropropane	<0.160		1.00	0.160	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
2,2-Dichloropropane	<0.180	CIN	4.00	0.180	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1-Dichloropropene	<0.150		1.00	0.150	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
cis-1,3-Dichloropropene	<0.150	L	5.00	0.150	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
trans-1,3-Dichloropropene	<0.220		5.00	0.220	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Ethylbenzene	<0.210		1.00	0.210	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Hexachlorobutadiene	1.33	J	5.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Hexane	<0.200		1.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Isopropylbenzene	<0.190		1.00	0.190	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
p-Isopropyltoluene	0.160	J	1.00	0.140	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Methylene Chloride	<0.170		5.00	0.170	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Methyl tert-Butyl Ether	<0.160		1.00	0.160	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Naphthalene	1.73	J	5.00	0.370	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
n-Propylbenzene	<0.100		1.00	0.100	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Styrene	<0.100		1.00	0.100	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1,1,2-Tetrachloroethane	<0.210		1.00	0.210	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1,2,2-Tetrachloroethane	<0.100		1.00	0.100	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Tetrachloroethene	<0.180		1.00	0.180	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Toluene	<0.150		1.00	0.150	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2,3-Trichlorobenzene	1.48	J	5.00	0.160	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2,4-Trichlorobenzene	0.920	J	5.00	0.160	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1,1-Trichloroethane	<0.120		1.00	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,1,2-Trichloroethane	<0.120		1.00	0.120	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Trichloroethene	<0.190		1.00	0.190	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Trichlorofluoromethane	<0.170		4.00	0.170	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2,3-Trichloropropane	<0.190		1.00	0.190	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,2,4-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
1,3,5-Trimethylbenzene	<0.200		1.00	0.200	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Vinyl chloride	<0.100		1.00	0.100	ug/L		03/28/12 00:00	03/28/12 06:56	1.00
Xylenes, total	<0.130		3.00	0.130	ug/L		03/28/12 00:00	03/28/12 06:56	1.00

Surrogate	Blank	Blank	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Dibromofluoromethane	95		75 - 120	03/28/12 00:00	03/28/12 06:56	1.00
Toluene-d8	94		80 - 120	03/28/12 00:00	03/28/12 06:56	1.00
4-Bromofluorobenzene	101		75 - 110	03/28/12 00:00	03/28/12 06:56	1.00

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1241-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Acetone	20.0	29.0	CIN	ug/L	145	60 - 150	
Benzene	20.0	21.7		ug/L	108	70 - 130	
Bromobenzene	20.0	21.3		ug/L	107	75 - 130	
Bromochloromethane	20.0	24.0		ug/L	120	65 - 145	
Bromodichloromethane	20.0	21.9		ug/L	110	60 - 130	
Bromoform	20.0	21.7		ug/L	108	30 - 125	
Bromomethane	20.0	16.1	CIN B	ug/L	81	35 - 130	
2-Butanone (MEK)	20.0	23.4		ug/L	117	55 - 140	
n-Butylbenzene	20.0	20.6		ug/L	103	55 - 135	
sec-Butylbenzene	20.0	20.9		ug/L	104	65 - 135	
tert-Butylbenzene	20.0	20.9		ug/L	104	60 - 135	
Carbon disulfide	20.0	21.8	B	ug/L	109	40 - 130	
Carbon Tetrachloride	20.0	22.2		ug/L	111	55 - 130	
Chlorobenzene	20.0	20.6		ug/L	103	75 - 125	
Chlorodibromomethane	20.0	22.9		ug/L	114	45 - 125	
Chloroethane	20.0	23.4	B	ug/L	117	55 - 135	
Chloroform	20.0	20.5		ug/L	103	70 - 125	
Chloromethane	20.0	16.5		ug/L	82	30 - 125	
2-Chlorotoluene	20.0	21.6		ug/L	108	75 - 135	
4-Chlorotoluene	20.0	21.7		ug/L	109	70 - 140	
1,2-Dibromo-3-chloropropane	20.0	18.5		ug/L	92	35 - 130	
1,2-Dibromoethane (EDB)	20.0	21.8		ug/L	109	70 - 135	
Dibromomethane	20.0	21.0		ug/L	105	75 - 130	
1,2-Dichlorobenzene	20.0	20.3		ug/L	102	65 - 135	
1,3-Dichlorobenzene	20.0	20.1		ug/L	100	70 - 130	
1,4-Dichlorobenzene	20.0	20.0		ug/L	100	60 - 140	
Dichlorodifluoromethane	20.0	18.1		ug/L	90	35 - 130	
1,1-Dichloroethane	20.0	22.6		ug/L	113	60 - 130	
1,2-Dichloroethane	20.0	21.6		ug/L	108	65 - 140	
1,1-Dichloroethene	20.0	19.5		ug/L	98	60 - 135	
cis-1,2-Dichloroethene	20.0	20.8	B	ug/L	104	70 - 135	
trans-1,2-Dichloroethene	20.0	19.5		ug/L	97	60 - 145	
1,2-Dichloropropane	20.0	22.3		ug/L	112	65 - 130	
1,3-Dichloropropane	20.0	22.4		ug/L	112	75 - 125	
2,2-Dichloropropane	20.0	20.7	CIN	ug/L	104	25 - 120	
1,1-Dichloropropene	20.0	24.0		ug/L	120	60 - 140	
cis-1,3-Dichloropropene	20.0	24.2	L	ug/L	121	30 - 120	
trans-1,3-Dichloropropene	20.0	22.7		ug/L	113	35 - 120	
Ethylbenzene	20.0	21.8		ug/L	109	70 - 130	
Hexachlorobutadiene	20.0	20.0	B	ug/L	100	60 - 135	
Hexane	20.0	25.5		ug/L	127	40 - 135	
Isopropylbenzene	20.0	22.0		ug/L	110	70 - 125	
p-Isopropyltoluene	20.0	20.4	B	ug/L	102	60 - 140	
Methylene Chloride	20.0	19.3		ug/L	96	55 - 145	
Methyl tert-Butyl Ether	20.0	21.9		ug/L	110	50 - 135	
Naphthalene	20.0	17.6	B	ug/L	88	40 - 135	
n-Propylbenzene	20.0	22.2		ug/L	111	70 - 135	
Styrene	20.0	21.9		ug/L	109	70 - 130	
1,1,1,2-Tetrachloroethane	20.0	22.2		ug/L	111	65 - 120	

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1241-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

**%Rec.**

Analyte		Spike	LCS	LCS	Unit	D	%Rec	Limits
		Added	Result	Qualifier				
1,1,2,2-Tetrachloroethane		20.0	23.0		ug/L		115	65 - 130
Tetrachloroethene		20.0	20.5		ug/L		103	70 - 135
Toluene		20.0	21.1		ug/L		105	70 - 135
1,2,3-Trichlorobenzene		20.0	18.6	B	ug/L		93	55 - 130
1,2,4-Trichlorobenzene		20.0	18.4	B	ug/L		92	40 - 135
1,1,1-Trichloroethane		20.0	23.4		ug/L		117	60 - 125
1,1,2-Trichloroethane		20.0	22.6		ug/L		113	75 - 125
Trichloroethene		20.0	21.1		ug/L		106	70 - 130
Trichlorofluoromethane		20.0	23.4		ug/L		117	55 - 145
1,2,3-Trichloropropane		20.0	22.5		ug/L		113	60 - 150
1,2,4-Trimethylbenzene		20.0	22.6		ug/L		113	70 - 140
1,3,5-Trimethylbenzene		20.0	22.3		ug/L		112	70 - 140
Vinyl chloride		20.0	20.9		ug/L		104	45 - 135
Xylenes, total		60.0	64.7		ug/L		108	70 - 130

**LCS LCS**

Surrogate	Spike	LCS	LCS
	%Recovery	Qualifier	Limits
Dibromofluoromethane	100		75 - 120
Toluene-d8	93		80 - 120
4-Bromofluorobenzene	106		80 - 120

**Lab Sample ID: 12C1241-MS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

**%Rec.**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec	Limits
	Result	Qualifier	Added	Result	Qualifier				
Acetone	0.370		20.0	20.5	CIN	ug/L		101	45 - 150
Benzene	0.0300		20.0	18.9		ug/L		94	50 - 130
Bromobenzene	<0.210		20.0	18.2		ug/L		91	60 - 135
Bromochloromethane	<0.120		20.0	22.6		ug/L		113	55 - 145
Bromodichloromethane	<0.120		20.0	19.5		ug/L		98	50 - 130
Bromoform	<0.140		20.0	17.3		ug/L		87	30 - 125
Bromomethane	0.350		20.0	17.0	CIN B	ug/L		83	30 - 130
2-Butanone (MEK)	<0.470		20.0	19.6		ug/L		98	45 - 140
n-Butylbenzene	<0.370		20.0	15.9		ug/L		79	40 - 135
sec-Butylbenzene	<0.200		20.0	16.1		ug/L		80	40 - 135
tert-Butylbenzene	<0.120		20.0	16.0		ug/L		80	40 - 135
Carbon disulfide	0.0700		20.0	19.2	B	ug/L		96	30 - 130
Carbon Tetrachloride	<0.240		20.0	17.6		ug/L		88	35 - 130
Chlorobenzene	<0.190		20.0	18.0		ug/L		90	60 - 130
Chlorodibromomethane	<0.200		20.0	18.7		ug/L		94	35 - 130
Chloroethane	0.0600		20.0	20.7	B	ug/L		103	40 - 135
Chloroform	<0.280		20.0	19.1		ug/L		96	55 - 125
Chloromethane	<0.310		20.0	14.5		ug/L		72	25 - 125
2-Chlorotoluene	0.0100		20.0	17.9		ug/L		89	55 - 140
4-Chlorotoluene	0.0100		20.0	17.9		ug/L		89	50 - 140
1,2-Dibromo-3-chloropropane	<0.120		20.0	14.6		ug/L		73	35 - 130
1,2-Dibromoethane (EDB)	<0.130		20.0	19.0		ug/L		95	55 - 140
Dibromomethane	<0.180		20.0	19.2		ug/L		96	60 - 135
1,2-Dichlorobenzene	<0.140		20.0	16.1		ug/L		81	55 - 140

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1241-MS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec	Limits	%Rec.
	Result	Qualifier	Added	Result	Qualifier					
1,3-Dichlorobenzene	0.0200		20.0	16.0		ug/L		80	55 - 135	
1,4-Dichlorobenzene	0.0200		20.0	15.9		ug/L		79	55 - 140	
Dichlorodifluoromethane	<0.200		20.0	14.6		ug/L		73	15 - 130	
1,1-Dichloroethane	<0.210		20.0	20.2		ug/L		101	50 - 130	
1,2-Dichloroethane	<0.180		20.0	20.0		ug/L		100	55 - 140	
1,1-Dichloroethene	<0.150		20.0	16.1		ug/L		81	35 - 135	
cis-1,2-Dichloroethene	0.0800		20.0	19.0	B	ug/L		95	45 - 135	
trans-1,2-Dichloroethene	<0.210		20.0	17.7		ug/L		88	45 - 145	
1,2-Dichloropropane	<0.870		20.0	20.4		ug/L		102	55 - 130	
1,3-Dichloropropane	<0.160		20.0	20.0		ug/L		100	60 - 135	
2,2-Dichloropropane	<0.180		20.0	19.6	CIN	ug/L		98	20 - 120	
1,1-Dichloropropene	<0.150		20.0	19.9		ug/L		100	40 - 140	
cis-1,3-Dichloropropene	<0.150		20.0	21.6	L	ug/L		108	25 - 120	
trans-1,3-Dichloropropene	<0.220		20.0	20.0		ug/L		100	25 - 120	
Ethylbenzene	0.0100		20.0	18.2		ug/L		91	45 - 135	
Hexachlorobutadiene	<0.200		20.0	15.3	B	ug/L		76	40 - 135	
Hexane	<0.200		20.0	18.5		ug/L		93	25 - 135	
Isopropylbenzene	<0.190		20.0	17.5		ug/L		87	45 - 125	
p-Isopropyltoluene	0.0100		20.0	15.6	B	ug/L		78	40 - 140	
Methylene Chloride	2.11		20.0	19.8		ug/L		89	45 - 145	
Methyl tert-Butyl Ether	<0.160		20.0	20.2		ug/L		101	40 - 135	
Naphthalene	2.50		20.0	16.0	B	ug/L		68	40 - 135	
n-Propylbenzene	0.0100		20.0	17.8		ug/L		89	45 - 140	
Styrene	<0.100		20.0	18.1		ug/L		90	40 - 135	
1,1,1,2-Tetrachloroethane	<0.210		20.0	18.7		ug/L		94	50 - 130	
1,1,2,2-Tetrachloroethane	<0.100		20.0	18.0		ug/L		90	55 - 140	
Tetrachloroethene	0.0500		20.0	16.7		ug/L		83	40 - 135	
Toluene	0.0300		20.0	18.3		ug/L		92	45 - 135	
1,2,3-Trichlorobenzene	<0.160		20.0	15.8	B	ug/L		79	50 - 140	
1,2,4-Trichlorobenzene	<0.160		20.0	15.2	B	ug/L		76	40 - 135	
1,1,1-Trichloroethane	0.0200		20.0	19.1		ug/L		95	40 - 125	
1,1,2-Trichloroethane	<0.120		20.0	19.9		ug/L		99	60 - 130	
Trichloroethene	<0.190		20.0	18.0		ug/L		90	50 - 130	
Trichlorofluoromethane	<0.170		20.0	19.6		ug/L		98	40 - 145	
1,2,3-Trichloropropane	<0.190		20.0	18.6		ug/L		93	55 - 150	
1,2,4-Trimethylbenzene	<0.200		20.0	17.9		ug/L		90	45 - 140	
1,3,5-Trimethylbenzene	<0.200		20.0	17.8		ug/L		89	45 - 140	
Vinyl chloride	0.620		20.0	18.6		ug/L		90	30 - 135	
Xylenes, total	<0.130		60.0	53.2		ug/L		89	40 - 135	

Surrogate	Matrix Spike	Matrix Spike	Limits
	%Recovery	Qualifier	
Dibromofluoromethane	99		75 - 120
Toluene-d8	94		80 - 120
4-Bromofluorobenzene	106		80 - 120

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1241-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec.	Limits	RPD	RPD Limit
	Result	Qualifier	Added	Result	Qualifier						
Acetone	0.370		20.0	18.9	CIN	ug/L	93	45 - 150	8	35	
Benzene	0.0300		20.0	18.6		ug/L	93	50 - 130	1	20	
Bromobenzene	<0.210		20.0	18.0		ug/L	90	60 - 135	0.7	15	
Bromochloromethane	<0.120		20.0	22.4		ug/L	112	55 - 145	1	25	
Bromodichloromethane	<0.120		20.0	19.2		ug/L	96	50 - 130	2	15	
Bromoform	<0.140		20.0	16.9		ug/L	85	30 - 125	2	25	
Bromomethane	0.350		20.0	20.5	CIN B	ug/L	101	30 - 130	19	35	
2-Butanone (MEK)	<0.470		20.0	20.8		ug/L	104	45 - 140	6	35	
n-Butylbenzene	<0.370		20.0	16.7		ug/L	84	40 - 135	5	20	
sec-Butylbenzene	<0.200		20.0	16.8		ug/L	84	40 - 135	5	20	
tert-Butylbenzene	<0.120		20.0	16.8		ug/L	84	40 - 135	5	20	
Carbon disulfide	0.0700		20.0	17.9	B	ug/L	89	30 - 130	7	30	
Carbon Tetrachloride	<0.240		20.0	17.6		ug/L	88	35 - 130	0.06	20	
Chlorobenzene	<0.190		20.0	17.4		ug/L	87	60 - 130	3	15	
Chlorodibromomethane	<0.200		20.0	18.1		ug/L	91	35 - 130	3	20	
Chloroethane	0.0600		20.0	20.4	B	ug/L	101	40 - 135	2	20	
Chloroform	<0.280		20.0	18.4		ug/L	92	55 - 125	4	15	
Chloromethane	<0.310		20.0	14.6		ug/L	73	25 - 125	1	25	
2-Chlorotoluene	0.0100		20.0	17.8		ug/L	89	55 - 140	0.4	20	
4-Chlorotoluene	0.0100		20.0	18.1		ug/L	90	50 - 140	1	20	
1,2-Dibromo-3-chloropropane	<0.120		20.0	16.2		ug/L	81	35 - 130	11	30	
1,2-Dibromoethane (EDB)	<0.130		20.0	18.7		ug/L	94	55 - 140	2	20	
Dibromomethane	<0.180		20.0	19.4		ug/L	97	60 - 135	1	15	
1,2-Dichlorobenzene	<0.140		20.0	17.1		ug/L	85	55 - 140	6	20	
1,3-Dichlorobenzene	0.0200		20.0	16.7		ug/L	83	55 - 135	4	15	
1,4-Dichlorobenzene	0.0200		20.0	16.4		ug/L	82	55 - 140	3	15	
Dichlorodifluoromethane	<0.200		20.0	13.9		ug/L	69	15 - 130	5	25	
1,1-Dichloroethane	<0.210		20.0	19.7		ug/L	98	50 - 130	3	25	
1,2-Dichloroethane	<0.180		20.0	20.1		ug/L	101	55 - 140	0.7	15	
1,1-Dichloroethene	<0.150		20.0	15.8		ug/L	79	35 - 135	2	30	
cis-1,2-Dichloroethene	0.0800		20.0	19.0	B	ug/L	94	45 - 135	0.2	20	
trans-1,2-Dichloroethene	<0.210		20.0	16.2		ug/L	81	45 - 145	9	35	
1,2-Dichloropropane	<0.870		20.0	20.3		ug/L	102	55 - 130	0.6	15	
1,3-Dichloropropane	<0.160		20.0	19.8		ug/L	99	60 - 135	0.9	15	
2,2-Dichloropropane	<0.180		20.0	21.7	CIN	ug/L	109	20 - 120	10	35	
1,1-Dichloropropene	<0.150		20.0	19.2		ug/L	96	40 - 140	4	20	
cis-1,3-Dichloropropene	<0.150		20.0	21.2	L	ug/L	106	25 - 120	2	20	
trans-1,3-Dichloropropene	<0.220		20.0	19.9		ug/L	100	25 - 120	0.6	20	
Ethylbenzene	0.0100		20.0	17.6		ug/L	88	45 - 135	3	20	
Hexachlorobutadiene	<0.200		20.0	16.5	B	ug/L	83	40 - 135	8	30	
Hexane	<0.200		20.0	18.5		ug/L	93	25 - 135	0.1	35	
Isopropylbenzene	<0.190		20.0	17.5		ug/L	88	45 - 125	0.2	15	
p-Isopropyltoluene	0.0100		20.0	16.6	B	ug/L	83	40 - 140	6	20	
Methylene Chloride	2.11		20.0	20.1		ug/L	90	45 - 145	1	30	
Methyl tert-Butyl Ether	<0.160		20.0	20.6		ug/L	103	40 - 135	2	25	
Naphthalene	2.50		20.0	19.7	B	ug/L	86	40 - 135	20	20	
n-Propylbenzene	0.0100		20.0	17.8		ug/L	89	45 - 140	0.4	20	
Styrene	<0.100		20.0	17.9		ug/L	89	40 - 135	1	20	
1,1,1,2-Tetrachloroethane	<0.210		20.0	18.0		ug/L	90	50 - 130	4	20	

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1241-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1241**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1241\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
1,1,2,2-Tetrachloroethane	<0.100		20.0	18.3	B	ug/L	92	55 - 140	2	20	
Tetrachloroethene	0.0500		20.0	16.6		ug/L	83	40 - 135	0.3	20	
Toluene	0.0300		20.0	17.6		ug/L	88	45 - 135	4	20	
1,2,3-Trichlorobenzene	<0.160		20.0	18.4	B	ug/L	92	50 - 140	15	25	
1,2,4-Trichlorobenzene	<0.160		20.0	17.2	B	ug/L	86	40 - 135	12	25	
1,1,1-Trichloroethane	0.0200		20.0	18.6		ug/L	93	40 - 125	2	20	
1,1,2-Trichloroethane	<0.120		20.0	19.4		ug/L	97	60 - 130	2	15	
Trichloroethene	<0.190		20.0	17.4		ug/L	87	50 - 130	3	20	
Trichlorofluoromethane	<0.170		20.0	18.7		ug/L	93	40 - 145	5	25	
1,2,3-Trichloropropane	<0.190		20.0	18.8		ug/L	94	55 - 150	1	20	
1,2,4-Trimethylbenzene	<0.200		20.0	18.6		ug/L	93	45 - 140	3	20	
1,3,5-Trimethylbenzene	<0.200		20.0	18.1		ug/L	90	45 - 140	2	20	
Vinyl chloride	0.620		20.0	18.0		ug/L	87	30 - 135	3	20	
Xylenes, total	<0.130		60.0	53.6		ug/L	89	40 - 135	0.6	20	

**Matrix Spike Dup**    **Matrix Spike Dup**

Surrogate	Matrix Spike Dup	Matrix Spike Dup		
	%Recovery	Qualifier	Limits	
Dibromofluoromethane	100		75 - 120	
Toluene-d8	94		80 - 120	
4-Bromofluorobenzene	102		80 - 120	

**Lab Sample ID: 12C1252-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1252**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1252\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acetone	<2500		2500		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Benzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Bromobenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Bromochloromethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Bromodichloromethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Bromoform	<500		500		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Bromomethane	<1000		1000		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
2-Butanone (MEK)	<2500		2500		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
n-Butylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
sec-Butylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
tert-Butylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Carbon disulfide	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Carbon Tetrachloride	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Chlorobenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Chlorodibromomethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Chloroethane	<1000		1000		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Chloroform	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Chloromethane	<1000		1000		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
2-Chlorotoluene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
4-Chlorotoluene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
1,2-Dibromo-3-chloropropane	<2500		2500		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
1,2-Dibromoethane (EDB)	<2500		2500		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
Dibromomethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0
1,2-Dichlorobenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33		50.0

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1252-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1252**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1252\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,3-Dichlorobenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,4-Dichlorobenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Dichlorodifluoromethane	<750		750		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1-Dichloroethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,2-Dichloroethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1-Dichloroethene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
cis-1,2-Dichloroethene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
trans-1,2-Dichloroethene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,2-Dichloropropane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,3-Dichloropropane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
2,2-Dichloropropane	<1000		1000		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1-Dichloropropene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
cis-1,3-Dichloropropene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
trans-1,3-Dichloropropene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Ethylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Hexachlorobutadiene	<1250		1250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Hexane	<1250		1250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Isopropylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
p-Isopropyltoluene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Methylene Chloride	<2500		2500		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Methyl tert-Butyl Ether	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Naphthalene	<1250		1250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
n-Propylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Styrene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1,1,2-Tetrachloroethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1,2,2-Tetrachloroethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Tetrachloroethene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Toluene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,2,3-Trichlorobenzene	<1250		1250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,2,4-Trichlorobenzene	<1250		1250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1,1-Trichloroethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,1,2-Trichloroethane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Trichloroethene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Trichlorofluoromethane	<1000		1000		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,2,3-Trichloropropane	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,2,4-Trimethylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
1,3,5-Trimethylbenzene	<250		250		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Vinyl chloride	<750		750		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	
Xylenes, total	<750		750		ug/kg wet	03/28/12 00:00	03/28/12 11:33	50.0	

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Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane	96		75 - 125	03/28/12 00:00	03/28/12 11:33	50.0
Toluene-d8	94		80 - 120	03/28/12 00:00	03/28/12 11:33	50.0
4-Bromofluorobenzene	103		80 - 120	03/28/12 00:00	03/28/12 11:33	50.0

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1252-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1252**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1252\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	Limits
Acetone	959	1300		ug/kg wet	135	65 - 150		
Benzene	959	960		ug/kg wet	100	55 - 135		
Bromobenzene	959	885		ug/kg wet	92	65 - 125		
Bromochloromethane	959	983		ug/kg wet	102	65 - 130		
Bromodichloromethane	959	975		ug/kg wet	102	65 - 130		
Bromoform	959	874		ug/kg wet	91	50 - 135		
Bromomethane	959	510		ug/kg wet	53	45 - 135		
2-Butanone (MEK)	959	1060		ug/kg wet	110	50 - 145		
n-Butylbenzene	959	896		ug/kg wet	93	55 - 130		
sec-Butylbenzene	959	859		ug/kg wet	90	60 - 125		
tert-Butylbenzene	959	856		ug/kg wet	89	55 - 125		
Carbon disulfide	959	786		ug/kg wet	82	40 - 135		
Carbon Tetrachloride	959	882		ug/kg wet	92	55 - 130		
Chlorobenzene	959	934		ug/kg wet	97	60 - 120		
Chlorodibromomethane	959	964		ug/kg wet	100	55 - 130		
Chloroethane	959	537		ug/kg wet	56	50 - 145		
Chloroform	959	914		ug/kg wet	95	65 - 130		
Chloromethane	959	638		ug/kg wet	66	40 - 135		
2-Chlorotoluene	959	946		ug/kg wet	99	60 - 125		
4-Chlorotoluene	959	943		ug/kg wet	98	60 - 125		
1,2-Dibromo-3-chloropropane	959	749		ug/kg wet	78	50 - 140		
1,2-Dibromoethane (EDB)	959	928		ug/kg wet	97	55 - 140		
Dibromomethane	959	943		ug/kg wet	98	65 - 135		
1,2-Dichlorobenzene	959	878		ug/kg wet	92	65 - 120		
1,3-Dichlorobenzene	959	884		ug/kg wet	92	60 - 125		
1,4-Dichlorobenzene	959	902		ug/kg wet	94	60 - 125		
Dichlorodifluoromethane	959	486		ug/kg wet	51	40 - 135		
1,1-Dichloroethane	959	932		ug/kg wet	97	55 - 135		
1,2-Dichloroethane	959	969		ug/kg wet	101	60 - 140		
1,1-Dichloroethene	959	624		ug/kg wet	65	50 - 145		
cis-1,2-Dichloroethene	959	954		ug/kg wet	99	60 - 135		
trans-1,2-Dichloroethene	959	879		ug/kg wet	92	55 - 135		
1,2-Dichloropropane	959	982		ug/kg wet	102	55 - 130		
1,3-Dichloropropane	959	1020		ug/kg wet	106	55 - 140		
2,2-Dichloropropane	959	901		ug/kg wet	94	40 - 135		
1,1-Dichloropropene	959	960		ug/kg wet	100	55 - 130		
cis-1,3-Dichloropropene	959	1010		ug/kg wet	105	50 - 115		
trans-1,3-Dichloropropene	959	901		ug/kg wet	94	55 - 130		
Ethylbenzene	959	896		ug/kg wet	93	60 - 125		
Hexachlorobutadiene	959	837		ug/kg wet	87	40 - 135		
Hexane	959	1050		ug/kg wet	109	45 - 140		
Isopropylbenzene	959	925		ug/kg wet	96	60 - 125		
p-Isopropyltoluene	959	848		ug/kg wet	88	60 - 120		
Methylene Chloride	959	981		ug/kg wet	102	55 - 145		
Methyl tert-Butyl Ether	959	1030		ug/kg wet	107	55 - 130		
Naphthalene	959	756		ug/kg wet	79	50 - 130		
n-Propylbenzene	959	948		ug/kg wet	99	50 - 125		
Styrene	959	901		ug/kg wet	94	60 - 125		
1,1,1,2-Tetrachloroethane	959	896		ug/kg wet	93	65 - 125		

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1252-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1252**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1252\_P**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	%Rec.	Limits
	Added	Result	Qualifier					
1,1,2,2-Tetrachloroethane	959	915		ug/kg wet		95	60 - 125	
Tetrachloroethene	959	943		ug/kg wet		98	55 - 125	
Toluene	959	915		ug/kg wet		95	60 - 130	
1,2,3-Trichlorobenzene	959	916		ug/kg wet		96	50 - 130	
1,2,4-Trichlorobenzene	959	863		ug/kg wet		90	45 - 135	
1,1,1-Trichloroethane	959	898		ug/kg wet		94	60 - 125	
1,1,2-Trichloroethane	959	944		ug/kg wet		98	55 - 135	
Trichloroethene	959	948		ug/kg wet		99	60 - 130	
Trichlorofluoromethane	959	822		ug/kg wet		86	50 - 145	
1,2,3-Trichloropropane	959	951		ug/kg wet		99	50 - 145	
1,2,4-Trimethylbenzene	959	925		ug/kg wet		96	55 - 125	
1,3,5-Trimethylbenzene	959	911		ug/kg wet		95	50 - 130	
Vinyl chloride	959	815		ug/kg wet		85	45 - 140	
Xylenes, total	2880	2780		ug/kg wet		97	50 - 130	

Surrogate	LCS	LCS	Limits
	%Recovery	Qualifier	
Dibromofluoromethane	98		75 - 125
Toluene-d8	93		80 - 120
4-Bromofluorobenzene	106		80 - 120

**Lab Sample ID: 12C1252-BSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1252**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1252\_P**

Analyte	Spike	LCS Dup	LCS Dup	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
Acetone	939	1610	L	ug/kg wet		171	65 - 150	22	40
Benzene	939	1130		ug/kg wet		121	55 - 135	17	25
Bromobenzene	939	1050		ug/kg wet		112	65 - 125	17	35
Bromoform	939	1100		ug/kg wet		117	65 - 130	11	35
Bromochloromethane	939	1120		ug/kg wet		120	65 - 130	14	30
Bromodichloromethane	939	1030		ug/kg wet		110	50 - 135	17	40
Bromomethane	939	622		ug/kg wet		66	45 - 135	20	40
2-Butanone (MEK)	939	1170		ug/kg wet		125	50 - 145	10	40
n-Butylbenzene	939	1050		ug/kg wet		112	55 - 130	16	30
sec-Butylbenzene	939	956		ug/kg wet		102	60 - 125	11	30
tert-Butylbenzene	939	970		ug/kg wet		103	55 - 125	12	25
Carbon disulfide	939	969		ug/kg wet		103	40 - 135	21	40
Carbon Tetrachloride	939	1040		ug/kg wet		111	55 - 130	16	30
Chlorobenzene	939	1060		ug/kg wet		113	60 - 120	12	30
Chlorodibromomethane	939	1100		ug/kg wet		117	55 - 130	13	40
Chloroethane	939	676		ug/kg wet		72	50 - 145	23	40
Chloroform	939	1060		ug/kg wet		113	65 - 130	15	30
Chloromethane	939	769		ug/kg wet		82	40 - 135	19	40
2-Chlorotoluene	939	1110		ug/kg wet		118	60 - 125	16	35
4-Chlorotoluene	939	1100		ug/kg wet		117	60 - 125	15	35
1,2-Dibromo-3-chloropropane	939	856		ug/kg wet		91	50 - 140	13	35
1,2-Dibromoethane (EDB)	939	1100		ug/kg wet		117	55 - 140	17	30
Dibromomethane	939	1110		ug/kg wet		118	65 - 135	16	30
1,2-Dichlorobenzene	939	1020		ug/kg wet		108	65 - 120	14	30

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8260B - Volatile Organic Compounds (Continued)

**Lab Sample ID: 12C1252-BSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1252**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1252\_P**

Analyte	Spike	LCS Dup	LCS Dup	Unit	D	%Rec	Limits	RPD	Limit
	Added	Result	Qualifier						
1,3-Dichlorobenzene	939	983		ug/kg wet	105	60 - 125	11	30	
1,4-Dichlorobenzene	939	965		ug/kg wet	103	60 - 125	7	30	
Dichlorodifluoromethane	939	556		ug/kg wet	59	40 - 135	13	35	
1,1-Dichloroethane	939	1080		ug/kg wet	115	55 - 135	15	40	
1,2-Dichloroethane	939	1150		ug/kg wet	122	60 - 140	17	30	
1,1-Dichloroethene	939	834		ug/kg wet	89	50 - 145	29	40	
cis-1,2-Dichloroethene	939	1120		ug/kg wet	119	60 - 135	16	40	
trans-1,2-Dichloroethene	939	1110		ug/kg wet	118	55 - 135	23	40	
1,2-Dichloropropane	939	1180		ug/kg wet	125	55 - 130	18	30	
1,3-Dichloropropane	939	1160		ug/kg wet	124	55 - 140	13	30	
2,2-Dichloropropane	939	1050		ug/kg wet	112	40 - 135	16	45	
1,1-Dichloropropene	939	1130		ug/kg wet	120	55 - 130	16	30	
cis-1,3-Dichloropropene	939	1160 L		ug/kg wet	124	50 - 115	14	35	
trans-1,3-Dichloropropene	939	1030		ug/kg wet	109	55 - 130	13	30	
Ethylbenzene	939	1060		ug/kg wet	113	60 - 125	17	30	
Hexachlorobutadiene	939	1010		ug/kg wet	107	40 - 135	18	35	
Hexane	939	1050		ug/kg wet	112	45 - 140	0.7	35	
Isopropylbenzene	939	1100		ug/kg wet	117	60 - 125	18	35	
p-Isopropyltoluene	939	961		ug/kg wet	102	60 - 120	13	30	
Methylene Chloride	939	1140		ug/kg wet	121	55 - 145	15	40	
Methyl tert-Butyl Ether	939	1210		ug/kg wet	129	55 - 130	16	30	
Naphthalene	939	878		ug/kg wet	94	50 - 130	15	30	
n-Propylbenzene	939	1120		ug/kg wet	119	50 - 125	17	35	
Styrene	939	1060		ug/kg wet	112	60 - 125	16	35	
1,1,1,2-Tetrachloroethane	939	1060		ug/kg wet	113	65 - 125	17	30	
1,1,2,2-Tetrachloroethane	939	1070		ug/kg wet	114	60 - 125	16	35	
Tetrachloroethene	939	1140		ug/kg wet	121	55 - 125	19	40	
Toluene	939	1090		ug/kg wet	116	60 - 130	17	35	
1,2,3-Trichlorobenzene	939	1050		ug/kg wet	112	50 - 130	14	35	
1,2,4-Trichlorobenzene	939	1010		ug/kg wet	108	45 - 135	16	35	
1,1,1-Trichloroethane	939	1040		ug/kg wet	111	60 - 125	15	30	
1,1,2-Trichloroethane	939	1110		ug/kg wet	118	55 - 135	16	30	
Trichloroethene	939	1110		ug/kg wet	118	60 - 130	16	30	
Trichlorofluoromethane	939	927		ug/kg wet	99	50 - 145	12	40	
1,2,3-Trichloropropane	939	1180		ug/kg wet	125	50 - 145	21	35	
1,2,4-Trimethylbenzene	939	1090		ug/kg wet	116	55 - 125	16	35	
1,3,5-Trimethylbenzene	939	1100		ug/kg wet	117	50 - 130	19	35	
Vinyl chloride	939	951		ug/kg wet	101	45 - 140	15	40	
Xylenes, total	2820	3250		ug/kg wet	115	50 - 130	15	30	

Surrogate	LCS Dup	LCS Dup	Limits
	%Recovery	Qualifier	
Dibromofluoromethane	101		75 - 125
Toluene-d8	98		80 - 120
4-Bromofluorobenzene	110		80 - 120

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8270D - PAH Compounds by SIM GCMS

**Lab Sample ID: 12C1035-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: V000528**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1035\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Acenaphthylene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Anthracene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Benzo (a) anthracene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Benzo (b) fluoranthene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Benzo (k) fluoranthene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Benzo (a) pyrene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Benzo (g,h,i) perylene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Chrysene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Dibenzo (a,h) anthracene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Fluoranthene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Fluorene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Indeno (1,2,3-cd) pyrene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
2-Methylnaphthalene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Naphthalene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Phenanthrene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Pyrene	<0.0100		0.0100		mg/kg wet		03/23/12 13:07	03/27/12 12:09	1.00
Surrogate	Blank	Blank	Limits	%Recovery	Qualifier	Prepared	Analyzed	Dil Fac	
	%Recovery	Qualifier							
2-Fluorobiphenyl	45		25 - 105			03/23/12 13:07	03/27/12 12:09	1.00	
Nitrobenzene-d5	48		20 - 105			03/23/12 13:07	03/27/12 12:09	1.00	
Terphenyl-d14	61		30 - 125			03/23/12 13:07	03/27/12 12:09	1.00	

**Lab Sample ID: 12C1035-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: V000528**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1035\_P**

Analyte	Spike	LCS	LCS	Unit	D	%Rec	Limits	%Rec.
	Added	Result	Qualifier					
Acenaphthene	0.0800	0.0389		mg/kg wet		49	35 - 80	
Acenaphthylene	0.0800	0.0388		mg/kg wet		49	35 - 85	
Anthracene	0.0800	0.0317		mg/kg wet		40	15 - 100	
Benzo (a) anthracene	0.0800	0.0438		mg/kg wet		55	40 - 100	
Benzo (b) fluoranthene	0.0800	0.0514		mg/kg wet		64	35 - 100	
Benzo (k) fluoranthene	0.0800	0.0477		mg/kg wet		60	30 - 105	
Benzo (a) pyrene	0.0800	0.0480		mg/kg wet		60	35 - 95	
Benzo (g,h,i) perylene	0.0800	0.0502		mg/kg wet		63	40 - 115	
Chrysene	0.0800	0.0522		mg/kg wet		65	40 - 100	
Dibenzo (a,h) anthracene	0.0800	0.0527		mg/kg wet		66	35 - 125	
Fluoranthene	0.0800	0.0515		mg/kg wet		64	20 - 115	
Fluorene	0.0800	0.0387		mg/kg wet		48	35 - 85	
Indeno (1,2,3-cd) pyrene	0.0800	0.0496		mg/kg wet		62	40 - 125	
2-Methylnaphthalene	0.0800	0.0408		mg/kg wet		51	30 - 80	
Naphthalene	0.0800	0.0546		mg/kg wet		68	30 - 75	
Phenanthrene	0.0800	0.0403		mg/kg wet		50	30 - 95	
Pyrene	0.0800	0.0539		mg/kg wet		67	20 - 115	
Surrogate	LCS	LCS	Limits	%Recovery	Qualifier	Prepared	Analyzed	Dil Fac
	Added	Result						
2-Fluorobiphenyl	46		20 - 105					
Nitrobenzene-d5	46		20 - 100					

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8270D - PAH Compounds by SIM GCMS (Continued)

**Lab Sample ID: 12C1035-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: V000522**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1035\_P**

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	76		30 - 125

**Lab Sample ID: 12C1035-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: V000522**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1035\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec.	Limits
Acenaphthene	<0.0217		0.0962	0.117		mg/kg dry	⊗	121	15 - 110	
Acenaphthylene	<0.0200		0.0962	0.0526		mg/kg dry	⊗	55	10 - 105	
Anthracene	0.0204		0.0962	0.224	M1	mg/kg dry	⊗	212	15 - 120	
Benzo (a) anthracene	0.171		0.0962	0.520	M1	mg/kg dry	⊗	363	20 - 115	
Benzo (b) fluoranthene	0.182		0.0962	0.656	M1	mg/kg dry	⊗	493	25 - 120	
Benzo (k) fluoranthene	0.0693		0.0962	0.214	M1	mg/kg dry	⊗	151	20 - 115	
Benzo (a) pyrene	0.149		0.0962	0.534	M1	mg/kg dry	⊗	400	20 - 115	
Benzo (g,h,i) perylene	0.115		0.0962	0.375	M1	mg/kg dry	⊗	270	25 - 120	
Chrysene	0.122		0.0962	0.510	M1	mg/kg dry	⊗	403	25 - 120	
Dibenzo (a,h) anthracene	<0.0609		0.0962	0.132		mg/kg dry	⊗	137	25 - 125	
Fluoranthene	0.244		0.0962	1.49	M1	mg/kg dry	⊗	1300	20 - 120	
Fluorene	<0.0234		0.0962	0.107		mg/kg dry	⊗	112	15 - 110	
Indeno (1,2,3-cd) pyrene	0.0790		0.0962	0.305	M1	mg/kg dry	⊗	235	25 - 125	
2-Methylnaphthalene	<0.0768		0.0962	0.0861		mg/kg dry	⊗	89	15 - 110	
Naphthalene	<0.0426		0.0962	0.0714		mg/kg dry	⊗	74	10 - 105	
Phenanthrene	0.118		0.0962	0.739	M1	mg/kg dry	⊗	645	25 - 120	
Pyrene	0.233		0.0962	1.19	M1	mg/kg dry	⊗	998	20 - 125	

Surrogate	Matrix Spike %Recovery	Matrix Spike Qualifier	Limits
2-Fluorobiphenyl	41		25 - 120
Nitrobenzene-d5	38	Z6	30 - 125
Terphenyl-d14	76		35 - 130

**Lab Sample ID: 12C1035-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: V000522**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1035\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec.	RPD	Limit
Acenaphthene	<0.0217		0.0962	0.0615	R	mg/kg dry	⊗	64	15 - 110	62	40
Acenaphthylene	<0.0200		0.0962	0.0539		mg/kg dry	⊗	56	10 - 105	2	40
Anthracene	0.0204		0.0962	0.113	R	mg/kg dry	⊗	96	15 - 120	66	40
Benzo (a) anthracene	0.171		0.0962	0.346	M1	mg/kg dry	⊗	181	20 - 115	40	40
Benzo (b) fluoranthene	0.182		0.0962	0.459	M1	mg/kg dry	⊗	288	25 - 120	35	40
Benzo (k) fluoranthene	0.0693		0.0962	0.170		mg/kg dry	⊗	105	20 - 115	23	40
Benzo (a) pyrene	0.149		0.0962	0.357	M1	mg/kg dry	⊗	216	20 - 115	40	40
Benzo (g,h,i) perylene	0.115		0.0962	0.265	M1	mg/kg dry	⊗	155	25 - 120	34	40
Chrysene	0.122		0.0962	0.345	M1	mg/kg dry	⊗	231	25 - 120	39	40
Dibenzo (a,h) anthracene	<0.0609		0.0962	0.112		mg/kg dry	⊗	116	25 - 125	17	40
Fluoranthene	0.244		0.0962	0.788	M1 R	mg/kg dry	⊗	566	20 - 120	62	40
Fluorene	<0.0234		0.0962	0.0642	R	mg/kg dry	⊗	67	15 - 110	50	40
Indeno (1,2,3-cd) pyrene	0.0790		0.0962	0.218	M1	mg/kg dry	⊗	144	25 - 125	33	40
2-Methylnaphthalene	<0.0768		0.0962	0.142	R	mg/kg dry	⊗	147	15 - 110	49	40

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8270D - PAH Compounds by SIM GCMS (Continued)

**Lab Sample ID: 12C1035-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: V000522**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1035\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Naphthalene	<0.0426		0.0962	0.0985		mg/kg dry	⊗	102	10 - 105	32	40
Phenanthrene	0.118		0.0962	0.321	M1 R	mg/kg dry	⊗	210	25 - 120	79	40
Pyrene	0.233		0.0962	0.684	M1 R	mg/kg dry	⊗	469	20 - 125	54	40
<b>Surrogate</b>		<b>Matrix Spike Dup</b>	<b>Matrix Spike Dup</b>								
		<b>%Recovery</b>	<b>Qualifier</b>		<b>Limits</b>						
2-Fluorobiphenyl	46			25 - 120							
Nitrobenzene-d5	40	Z6		30 - 125							
Terphenyl-d14	95			35 - 130							

**Lab Sample ID: 12C1144-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000550**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1144\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Acenaphthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Acenaphthylene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Anthracene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Benzo (a) anthracene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Benzo (b) fluoranthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Benzo (k) fluoranthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Benzo (a) pyrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Benzo (g,h,i) perylene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Chrysene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Dibenzo (a,h) anthracene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Fluoranthene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Fluorene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Indeno (1,2,3-cd) pyrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
2-Methylnaphthalene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Naphthalene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Phenanthrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
Pyrene	<0.100		0.100		ug/L		03/27/12 11:25	03/29/12 16:19	1.00
<b>Surrogate</b>		<b>Blank</b>	<b>Blank</b>	<b>Limits</b>			<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
		<b>%Recovery</b>	<b>Qualifier</b>						
2-Fluorobiphenyl	40			25 - 95			03/27/12 11:25	03/29/12 16:19	1.00
Nitrobenzene-d5	46			25 - 95			03/27/12 11:25	03/29/12 16:19	1.00
Terphenyl-d14	64			25 - 120			03/27/12 11:25	03/29/12 16:19	1.00

**Lab Sample ID: 12C1144-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000550**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1144\_P**

Analyte	Spike	LCS		Unit	D	%Rec	Limits
		Added	Result				
Acenaphthene	2.00		0.963	ug/L		48	25 - 90
Acenaphthylene	2.00		0.974	ug/L		49	25 - 90
Anthracene	2.00		0.814	ug/L		41	15 - 105
Benzo (a) anthracene	2.00		1.01	ug/L		51	30 - 100
Benzo (b) fluoranthene	2.00		1.08	ug/L		54	10 - 105
Benzo (k) fluoranthene	2.00		1.24	ug/L		62	10 - 105
Benzo (a) pyrene	2.00		1.16	ug/L		58	10 - 105

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8270D - PAH Compounds by SIM GCMS (Continued)

**Lab Sample ID: 12C1144-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000550**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1144\_P**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.	Limits
		Result	Qualifier					
Benzo (g,h,i) perylene	2.00	1.10		ug/L		55	10 - 100	
Chrysene	2.00	1.18		ug/L		59	30 - 100	
Dibenzo (a,h) anthracene	2.00	1.17		ug/L		58	10 - 100	
Fluoranthene	2.00	1.19		ug/L		60	25 - 105	
Fluorene	2.00	1.01		ug/L		51	30 - 90	
Indeno (1,2,3-cd) pyrene	2.00	1.13		ug/L		57	10 - 105	
2-Methylnaphthalene	2.00	0.876		ug/L		44	25 - 85	
Naphthalene	2.00	0.923		ug/L		46	25 - 85	
Phenanthrene	2.00	1.08		ug/L		54	25 - 95	
Pyrene	2.00	1.21		ug/L		60	20 - 110	
<b>Surrogate</b>		<b>LCS</b>	<b>LCS</b>					
		%Recovery	Qualifier	Limits				
2-Fluorobiphenyl	44			20 - 100				
Nitrobenzene-d5	53			20 - 100				
Terphenyl-d14	64			25 - 120				

**Lab Sample ID: 12C1144-BSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000550**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1144\_P**

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.	RPD	RPD Limit
		Result	Qualifier						
Acenaphthene	2.00	1.04		ug/L		52	25 - 90	7	35
Acenaphthylene	2.00	1.05		ug/L		53	25 - 90	8	35
Anthracene	2.00	0.884		ug/L		44	15 - 105	8	35
Benzo (a) anthracene	2.00	1.19		ug/L		60	30 - 100	16	35
Benzo (b) fluoranthene	2.00	1.29		ug/L		64	10 - 105	18	35
Benzo (k) fluoranthene	2.00	1.44		ug/L		72	10 - 105	15	35
Benzo (a) pyrene	2.00	1.36		ug/L		68	10 - 105	16	35
Benzo (g,h,i) perylene	2.00	1.28		ug/L		64	10 - 100	15	35
Chrysene	2.00	1.38		ug/L		69	30 - 100	16	35
Dibenzo (a,h) anthracene	2.00	1.37		ug/L		69	10 - 100	16	35
Fluoranthene	2.00	1.36		ug/L		68	25 - 105	13	35
Fluorene	2.00	1.08		ug/L		54	30 - 90	6	35
Indeno (1,2,3-cd) pyrene	2.00	1.34		ug/L		67	10 - 105	17	35
2-Methylnaphthalene	2.00	0.990		ug/L		49	25 - 85	12	30
Naphthalene	2.00	1.00		ug/L		50	25 - 85	8	25
Phenanthrene	2.00	1.17		ug/L		59	25 - 95	8	35
Pyrene	2.00	1.36		ug/L		68	20 - 110	12	35
<b>Surrogate</b>		<b>LCS</b>	<b>Dup</b>	<b>LCS</b>					
		%Recovery	Qualifier	Limits					
2-Fluorobiphenyl	49			20 - 100					
Nitrobenzene-d5	56			20 - 100					
Terphenyl-d14	76			25 - 120					

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS

**Lab Sample ID:** 12C1086-BLK1

**Matrix:** Solid/Soil

**Analysis Batch:** V000538

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1086\_P

Analyte	Blank		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel	<12.0		12.0		mg/kg		03/26/12 09:28	03/28/12 08:31	1.00
Gasoline	<12.0		12.0		mg/kg		03/26/12 09:28	03/28/12 08:31	1.00
Motor Oil	<12.0		12.0		mg/kg		03/26/12 09:28	03/28/12 08:31	1.00

Surrogate	Blank		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Octacosane	92		50 - 150	03/26/12 09:28	03/28/12 08:31	1.00

**Lab Sample ID:** 12C1086-BS1

**Matrix:** Solid/Soil

**Analysis Batch:** V000538

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1086\_P

Analyte	Spike		LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result						
Gasoline		80.0		43.9	mg/kg		55	40 - 105

Surrogate	LCS		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Octacosane	86		65 - 150			

**Lab Sample ID:** 12C1086-MS1

**Matrix:** Solid/Soil

**Analysis Batch:** V000538

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1086\_P

Analyte	Sample		Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec.	Limits
	Result	Qualifier							
Gasoline	<5.79		79.4	42.5	mg/kg		53	10 - 100	

Surrogate	Matrix Spike		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Octacosane	98		55 - 150			

**Lab Sample ID:** 12C1086-MSD1

**Matrix:** Solid/Soil

**Analysis Batch:** V000538

**Client Sample ID:** Matrix Spike Duplicate

**Prep Type:** Total

**Prep Batch:** 12C1086\_P

Analyte	Sample		Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec.	Limits	RPD	Limit
	Result	Qualifier									
Gasoline	<5.79		79.6	42.3	mg/kg		53	10 - 100	0.4	40	

Surrogate	Matrix Spike Dup		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Octacosane	92		55 - 150			

**Lab Sample ID:** 12C1093-BLK1

**Matrix:** Water - NonPotable

**Analysis Batch:** V000542

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1093\_P

Analyte	Blank		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel	<300		300		ug/L		03/26/12 09:54	03/28/12 23:03	1.00
Gasoline	<300		300		ug/L		03/26/12 09:54	03/28/12 23:03	1.00
Motor Oil	<300		300		ug/L		03/26/12 09:54	03/28/12 23:03	1.00

Surrogate	Blank		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Octacosane	95		55 - 150	03/26/12 09:54	03/28/12 23:03	1.00

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# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: OA-2 - 8015B - UST ANALYSIS PARAMETERS (Continued)

**Lab Sample ID: 12C1093-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000542**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1093\_P**

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec.	Limits
		Result	Qualifier				
Motor Oil	1000	283	L1	ug/L	28	35 - 115	
<b>Surrogate</b>	<b>LCS</b>	<b>LCS</b>					
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>				
Octacosane	76		45 - 140				

**Lab Sample ID: 12C1093-BSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000542**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1093\_P**

Analyte	Spike Added	LCS Dup	LCS Dup	Unit	D	%Rec.	Limits	RPD	Limit
		Result	Qualifier						
Motor Oil	1000	433	R2	ug/L	43	35 - 115	42	35	
<b>Surrogate</b>	<b>LCS Dup</b>	<b>LCS Dup</b>							
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
Octacosane	82		45 - 140						

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A

**Lab Sample ID: 12C1084-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: V000531**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1084\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
alpha-BHC	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
beta-BHC	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
delta-BHC	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
gamma-BHC (Lindane)	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Chlordane	<160		160		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Dieldrin	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
4,4'-DDD	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
4,4'-DDE	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
4,4'-DDT	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Endosulfan I	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Endosulfan II	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Endosulfan sulfate	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Endrin	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Endrin aldehyde	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Heptachlor	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Heptachlor epoxide	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Methoxychlor	<6.40		6.40		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
Toxaphene	<160		160		ug/kg wet		03/26/12 09:25	03/27/12 11:21	1.00
<b>Surrogate</b>	<b>Blank</b>	<b>Blank</b>							
	<b>%Recovery</b>	<b>Qualifier</b>	<b>Limits</b>						
Decachlorobiphenyl	80		45 - 145				03/26/12 09:25	03/27/12 11:21	1.00
Tetrachloro-meta-xylene	61		55 - 105				03/26/12 09:25	03/27/12 11:21	1.00

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A (Continued)

**Lab Sample ID: 12C1084-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: V000531**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1084\_P**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Aldrin	20.0	17.3		ug/kg wet	87	60 - 115	
alpha-BHC	20.0	16.9		ug/kg wet	85	60 - 110	
beta-BHC	20.0	18.1		ug/kg wet	90	65 - 120	
delta-BHC	20.0	13.2		ug/kg wet	66	30 - 125	
gamma-BHC (Lindane)	20.0	16.9		ug/kg wet	85	65 - 110	
alpha-Chlordane	20.0	17.1		ug/kg wet	86	65 - 115	
gamma-Chlordane	20.0	17.8		ug/kg wet	89	60 - 120	
Dieldrin	20.0	17.4		ug/kg wet	87	65 - 120	
4,4'-DDD	20.0	17.3		ug/kg wet	87	65 - 125	
4,4'-DDE	20.0	18.0		ug/kg wet	90	65 - 130	
4,4'-DDT	20.0	19.9		ug/kg wet	100	50 - 140	
Endosulfan I	20.0	17.8		ug/kg wet	89	40 - 135	
Endosulfan II	20.0	18.2		ug/kg wet	91	45 - 135	
Endosulfan sulfate	20.0	18.6		ug/kg wet	93	60 - 120	
Endrin	20.0	18.1		ug/kg wet	91	60 - 135	
Endrin aldehyde	20.0	18.4		ug/kg wet	92	55 - 125	
Endrin ketone	20.0	19.6		ug/kg wet	98	60 - 130	
Heptachlor	20.0	18.4		ug/kg wet	92	55 - 125	
Heptachlor epoxide	20.0	17.9		ug/kg wet	90	65 - 120	
Methoxychlor	20.0	21.1		ug/kg wet	106	50 - 145	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Decachlorobiphenyl	82		50 - 145
Tetrachloro-meta-xylene	68		45 - 125

**Lab Sample ID: 12C1084-BS2**

**Matrix: Solid/Soil**

**Analysis Batch: V000531**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1084\_P**

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Toxaphene	400	354		ug/kg wet	88	70 - 130	

Surrogate	LCS		Limits
	%Recovery	Qualifier	
Decachlorobiphenyl	84		50 - 145
Tetrachloro-meta-xylene	76		45 - 125

**Lab Sample ID: 12C1084-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: V000531**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1084\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike		Unit	D	%Rec	Limits
				Result	Qualifier				
Aldrin	<0.301		23.2	11.5		ug/kg dry	⊗	50	40 - 145
alpha-BHC	<0.204		23.2	13.9		ug/kg dry	⊗	60	45 - 150
beta-BHC	<0.385		23.2	19.0		ug/kg dry	⊗	82	45 - 150
delta-BHC	<0.277		23.2	11.6		ug/kg dry	⊗	50	50 - 150
gamma-BHC (Lindane)	<0.120		23.2	31.6		ug/kg dry	⊗	136	45 - 150
alpha-Chlordane	<0.144		23.2	13.2		ug/kg dry	⊗	57	45 - 145
gamma-Chlordane	<0.253		23.2	13.2		ug/kg dry	⊗	57	45 - 150
Dieldrin	<0.144		23.2	14.8		ug/kg dry	⊗	64	50 - 150

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A (Continued)

**Lab Sample ID: 12C1084-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: V000531**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1084\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	%Rec.			
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
4,4'-DDD	<0.156		23.2	18.0		ug/kg dry	⊗	78	50 - 150
4,4'-DDE	<0.228		23.2	13.2		ug/kg dry	⊗	57	45 - 145
4,4'-DDT	<0.144		23.2	6.99	M1	ug/kg dry	⊗	30	45 - 150
Endosulfan I	<0.216		23.2	14.7		ug/kg dry	⊗	63	45 - 150
Endosulfan II	<0.216		23.2	15.1		ug/kg dry	⊗	65	40 - 150
Endosulfan sulfate	<0.240		23.2	12.7		ug/kg dry	⊗	55	45 - 150
Endrin	<0.228		23.2	17.6		ug/kg dry	⊗	76	55 - 150
Endrin aldehyde	1.40		23.2	19.5		ug/kg dry	⊗	78	40 - 145
Endrin ketone	<0.325		23.2	19.2		ug/kg dry	⊗	83	50 - 150
Heptachlor	<0.168		23.2	9.49	M1	ug/kg dry	⊗	41	50 - 150
Heptachlor epoxide	<0.240		23.2	14.3		ug/kg dry	⊗	62	45 - 150
Methoxychlor	<0.385		23.2	13.1		ug/kg dry	⊗	56	45 - 150
<b>Surrogate</b>		<b>Matrix Spike</b>	<b>Matrix Spike</b>						
		<b>%Recovery</b>	<b>Qualifier</b>						
<i>Decachlorobiphenyl</i>		87		30 - 140					
<i>Tetrachloro-meta-xylene</i>		77		20 - 115					

**Lab Sample ID: 12C1084-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: V000531**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1084\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	%Rec.			RPD	Limit	
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aldrin	<0.301		23.5	12.8		ug/kg dry	⊗	55	40 - 145	11	40
alpha-BHC	<0.204		23.5	14.3		ug/kg dry	⊗	61	45 - 150	3	40
beta-BHC	<0.385		23.5	194	M1 R	ug/kg dry	⊗	825	45 - 150	164	40
delta-BHC	<0.277		23.5	11.5	M1	ug/kg dry	⊗	49	50 - 150	0.3	40
gamma-BHC (Lindane)	<0.120		23.5	11.0	R	ug/kg dry	⊗	47	45 - 150	97	40
alpha-Chlordane	<0.144		23.5	13.6		ug/kg dry	⊗	58	45 - 145	3	40
gamma-Chlordane	<0.253		23.5	13.5		ug/kg dry	⊗	58	45 - 150	2	40
Dieldrin	<0.144		23.5	14.9		ug/kg dry	⊗	63	50 - 150	0.7	40
4,4'-DDD	<0.156		23.5	18.5		ug/kg dry	⊗	79	50 - 150	3	40
4,4'-DDE	<0.228		23.5	14.4		ug/kg dry	⊗	61	45 - 145	9	40
4,4'-DDT	<0.144		23.5	7.13	M1	ug/kg dry	⊗	30	45 - 150	2	40
Endosulfan I	<0.216		23.5	15.0		ug/kg dry	⊗	64	45 - 150	2	40
Endosulfan II	<0.216		23.5	14.6		ug/kg dry	⊗	62	40 - 150	3	40
Endosulfan sulfate	<0.240		23.5	9.52	M1	ug/kg dry	⊗	40	45 - 150	28	40
Endrin	<0.228		23.5	17.6		ug/kg dry	⊗	75	55 - 150	0.1	40
Endrin aldehyde	1.40		23.5	14.5		ug/kg dry	⊗	56	40 - 145	29	40
Endrin ketone	<0.325		23.5	25.5		ug/kg dry	⊗	108	50 - 150	28	40
Heptachlor	<0.168		23.5	9.13	M1	ug/kg dry	⊗	39	50 - 150	4	40
Heptachlor epoxide	<0.240		23.5	13.8		ug/kg dry	⊗	59	45 - 150	4	40
Methoxychlor	<0.385		23.5	5.91	M1 R	ug/kg dry	⊗	25	45 - 150	76	40
<b>Surrogate</b>		<b>Matrix Spike Dup</b>	<b>Matrix Spike Dup</b>								
		<b>%Recovery</b>	<b>Qualifier</b>								
<i>Decachlorobiphenyl</i>		121		30 - 140							
<i>Tetrachloro-meta-xylene</i>		101		20 - 115							

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A (Continued)

**Lab Sample ID: 12C1147-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000605**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1147\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aldrin	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
alpha-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
beta-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
delta-BHC	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
gamma-BHC (Lindane)	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Chlordane	<2.00		2.00		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Dieldrin	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
4,4'-DDD	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
4,4'-DDE	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
4,4'-DDT	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Endosulfan I	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Endosulfan II	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Endosulfan sulfate	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Endrin	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Endrin aldehyde	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Heptachlor	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Heptachlor epoxide	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Methoxychlor	<0.0320		0.0320		ug/L		03/27/12 11:33	04/04/12 13:11	1.00
Toxaphene	<2.00		2.00		ug/L		03/27/12 11:33	04/04/12 13:11	1.00

Surrogate	Blank	Blank	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Decachlorobiphenyl			84		45 - 130	03/27/12 11:33	04/04/12 13:11	1.00
Tetrachloro-meta-xylene			60		30 - 100	03/27/12 11:33	04/04/12 13:11	1.00

**Lab Sample ID: 12C1147-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000563**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1147\_P**

Analyte	Spike	LCS	LCS	%Rec.		
	Added	Result	Qualifier	Unit	D	%Rec
Aldrin	0.500	0.268		ug/L	54	35 - 115
alpha-BHC	0.500	0.324		ug/L	65	45 - 110
beta-BHC	0.500	0.343		ug/L	69	45 - 120
delta-BHC	0.500	0.260		ug/L	52	25 - 120
gamma-BHC (Lindane)	0.500	0.326		ug/L	65	50 - 115
alpha-Chlordane	0.500	0.333		ug/L	67	45 - 115
gamma-Chlordane	0.500	0.325		ug/L	65	50 - 115
Dieldrin	0.500	0.341		ug/L	68	45 - 125
4,4'-DDD	0.500	0.356		ug/L	71	50 - 120
4,4'-DDE	0.500	0.339		ug/L	68	45 - 125
4,4'-DDT	0.500	0.398		ug/L	80	45 - 125
Endosulfan I	0.500	0.340		ug/L	68	35 - 120
Endosulfan II	0.500	0.351		ug/L	70	35 - 125
Endosulfan sulfate	0.500	0.387		ug/L	77	50 - 115
Endrin	0.500	0.359		ug/L	72	50 - 120
Endrin aldehyde	0.500	0.349		ug/L	70	45 - 120
Endrin ketone	0.500	0.385		ug/L	77	50 - 125
Heptachlor	0.500	0.310		ug/L	62	40 - 120
Heptachlor epoxide	0.500	0.333		ug/L	67	50 - 115
Methoxychlor	0.500	0.399		ug/L	80	40 - 130

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 8081A - Organochlorine Pesticides by EPA Method 8081A (Continued)

**Lab Sample ID: 12C1147-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000563**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1147\_P**

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
Decachlorobiphenyl	61		40 - 135
Tetrachloro-meta-xylene	48		35 - 110

**Lab Sample ID: 12C1147-BS2**

**Matrix: Water - NonPotable**

**Analysis Batch: V000563**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1147\_P**

Analyte	Spike	LCS	LCS		%Rec.		
	Added	Result	Qualifier	Unit	D	%Rec	Limits
Toxaphene	10.0	7.24		ug/L	72	45 - 140	

Surrogate	LCS	LCS	
	%Recovery	Qualifier	Limits
Decachlorobiphenyl	65		40 - 135
Tetrachloro-meta-xylene	52		35 - 110

**Lab Sample ID: 12C1147-BSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: V000563**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 12C1147\_P**

Analyte	Spike	LCS Dup	LCS Dup		%Rec.	RPD	Limit		
	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Aldrin	0.500	0.275		ug/L	55	35 - 115	3	35	
alpha-BHC	0.500	0.335		ug/L	67	45 - 110	3	35	
beta-BHC	0.500	0.352		ug/L	70	45 - 120	2	35	
delta-BHC	0.500	0.269		ug/L	54	25 - 120	3	35	
gamma-BHC (Lindane)	0.500	0.338		ug/L	68	50 - 115	3	35	
alpha-Chlordane	0.500	0.347		ug/L	69	45 - 115	4	35	
gamma-Chlordane	0.500	0.343		ug/L	69	50 - 115	5	35	
Dieldrin	0.500	0.352		ug/L	70	45 - 125	3	35	
4,4'-DDD	0.500	0.370		ug/L	74	50 - 120	4	35	
4,4'-DDE	0.500	0.352		ug/L	70	45 - 125	4	35	
4,4'-DDT	0.500	0.416		ug/L	83	45 - 125	4	35	
Endosulfan I	0.500	0.347		ug/L	69	35 - 120	2	35	
Endosulfan II	0.500	0.364		ug/L	73	35 - 125	4	35	
Endosulfan sulfate	0.500	0.405		ug/L	81	50 - 115	5	35	
Endrin	0.500	0.348		ug/L	70	50 - 120	3	35	
Endrin aldehyde	0.500	0.358		ug/L	72	45 - 120	2	35	
Endrin ketone	0.500	0.417		ug/L	83	50 - 125	8	35	
Heptachlor	0.500	0.318		ug/L	64	40 - 120	3	35	
Heptachlor epoxide	0.500	0.341		ug/L	68	50 - 115	2	35	
Methoxychlor	0.500	0.423		ug/L	85	40 - 130	6	30	

Surrogate	LCS Dup	LCS Dup	
	%Recovery	Qualifier	Limits
Decachlorobiphenyl	74		40 - 135
Tetrachloro-meta-xylene	49		35 - 110

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 7470A - Total Metals by SW 846 Series Methods

**Lab Sample ID:** 12C1141-BLK1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1141

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1141\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.000200		0.000200		mg/L		03/27/12 10:40	03/27/12 12:35	1.00

**Lab Sample ID:** 12C1141-BS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1141

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1141\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Mercury		0.00167	0.00172	mg/L		103	80 - 120	

**Lab Sample ID:** 12C1141-MS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1141

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1141\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits	%Rec.
Mercury	<0.0000240		0.00167	0.00146		mg/L		88	70 - 130	

**Lab Sample ID:** 12C1141-MSD1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1141

**Client Sample ID:** Matrix Spike Duplicate

**Prep Type:** Total

**Prep Batch:** 12C1141\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	Limits	%Rec.	RPD	Limit
Mercury	<0.0000240		0.00167	0.00149		mg/L		89	70 - 130	2	20	

## Method: SW 7471B - Total Metals by SW 846 Series Methods

**Lab Sample ID:** 12C1350-BLK1

**Matrix:** Solid/Soil

**Analysis Batch:** 12C1350

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1350\_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.0180		0.0180		mg/kg wet		03/30/12 12:40	03/30/12 13:26	1.00

**Lab Sample ID:** 12C1350-BS1

**Matrix:** Solid/Soil

**Analysis Batch:** 12C1350

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1350\_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits	%Rec.
Mercury		0.159	0.157	mg/kg wet		98	80 - 120	

**Lab Sample ID:** 12C1350-MS1

**Matrix:** Solid/Soil

**Analysis Batch:** 12C1350

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1350\_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits	%Rec.
Mercury	0.00374		0.237	0.215		mg/kg dry	⊗	89	70 - 130	

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 7471B - Total Metals by SW 846 Series Methods (Continued)

**Lab Sample ID:** 12C1350-MSD1

**Matrix:** Solid/Soil

**Analysis Batch:** 12C1350

**Client Sample ID:** Matrix Spike Duplicate

**Prep Type:** Total

**Prep Batch:** 12C1350\_P

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec.	RPD	Limit	
	Result	Qualifier	Added	Result	Qualifier						
Mercury	0.00374		0.234	0.208		mg/kg dry	⊗	87	70 - 130	3	20

## Method: SW 7010 - Total Metals by SW 846 Series Methods

**Lab Sample ID:** 12C1103-BLK1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Lead	<0.00400		0.00400		mg/L		03/26/12 10:48	03/27/12 11:48	1.00

**Lab Sample ID:** 12C1103-BLK1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Cadmium	<0.000500		0.000500		mg/L		03/26/12 10:48	03/30/12 10:44	1.00

**Lab Sample ID:** 12C1103-BLK1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Selenium	<0.00500		0.00500		mg/L		03/26/12 10:48	03/30/12 23:42	1.00

**Lab Sample ID:** 12C1103-BLK1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Method Blank

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<0.00100		0.00100		mg/L		03/26/12 10:48	04/03/12 22:43	1.00

**Lab Sample ID:** 12C1103-BS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Lead	0.0400	0.0377		mg/L		94	80 - 120

**Lab Sample ID:** 12C1103-BS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Cadmium	0.0200	0.0200		mg/L		100	80 - 120

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 7010 - Total Metals by SW 846 Series Methods (Continued)

**Lab Sample ID:** 12C1103-BS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Selenium	0.0800	0.0767		mg/L	96	80 - 120	

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-BS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Spike Added	LCS		Unit	D	%Rec	Limits
		Result	Qualifier				
Arsenic	0.0400	0.0337		mg/L	84	80 - 120	

**Client Sample ID:** Lab Control Sample

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-MS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
						mg/L			
Lead	<0.000821		0.0400	0.0350		mg/L	87	75 - 125	

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-MS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
						mg/L			
Cadmium	<0.000195		0.0200	0.0211		mg/L	106	75 - 125	

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-MS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
						mg/L			
Selenium	<0.00183		0.0800	0.0714		mg/L	89	75 - 125	

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-MS1

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
						mg/L			
Arsenic	<0.000185		0.0400	0.0370		mg/L	93	75 - 125	

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-MS2

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
						mg/L			
Lead	0.158		0.0400	0.179	M1	mg/L	53	75 - 125	

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

**Lab Sample ID:** 12C1103-MS2

**Matrix:** Water - NonPotable

**Analysis Batch:** 12C1103

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	Limits
						mg/L			
Cadmium	<0.000975		0.0200	0.0166		mg/L	83	75 - 125	

**Client Sample ID:** Matrix Spike

**Prep Type:** Total

**Prep Batch:** 12C1103\_P

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 7010 - Total Metals by SW 846 Series Methods (Continued)

**Lab Sample ID: 12C1103-MS2**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	%Rec.			
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Selenium	<0.00366		0.0800	0.0256	M1	mg/L	32	75 - 125	

**Lab Sample ID: 12C1103-MS2**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	%Rec.			
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Arsenic	<0.000185		0.0400	0.0266	M1	mg/L	67	75 - 125	

**Lab Sample ID: 12C1103-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	%Rec.			RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	RPD Limit
Lead	<0.000821		0.0400	0.0370		mg/L	93	75 - 125	6 20

**Lab Sample ID: 12C1103-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	%Rec.			RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	RPD Limit
Cadmium	<0.000195		0.0200	0.0200		mg/L	100	75 - 125	5 20

**Lab Sample ID: 12C1103-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	%Rec.			RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	RPD Limit
Selenium	<0.00183		0.0800	0.0699		mg/L	87	75 - 125	2 20

**Lab Sample ID: 12C1103-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	%Rec.			RPD
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	RPD Limit
Arsenic	<0.000185		0.0400	0.0336		mg/L	84	75 - 125	10 20

**Lab Sample ID: 12C1103-DUP1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Duplicate	Duplicate	%Rec.			RPD
	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Lead	0.00469		0.00223	R	mg/L		71	20

**Lab Sample ID: 12C1103-DUP1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample	Sample	Duplicate	Duplicate	%Rec.			RPD
	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit
Cadmium	<0.000195		<0.000500		mg/L		200	

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 7010 - Total Metals by SW 846 Series Methods (Continued)

**Lab Sample ID: 12C1103-DUP1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Selenium	<0.00183		<0.00500		mg/L			20

**Lab Sample ID: 12C1103-DUP1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1103**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1103\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Arsenic	0.00505		0.00462		mg/L		9	20

**Lab Sample ID: 12C1200-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1200**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1200\_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<1.00		1.00		mg/kg wet		03/28/12 10:48	03/29/12 10:17	1.00

**Lab Sample ID: 12C1200-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1200**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1200\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Arsenic	1.84	1.64		mg/kg wet		89	80 - 120

**Lab Sample ID: 12C1200-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1200**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1200\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec.	Limits
Arsenic	38.9		3.91	45.7	M1	mg/kg dry	✉	172	75 - 125

**Lab Sample ID: 12C1200-MS2**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1200**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1200\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec.	Limits
Arsenic	<0.192		3.99	1.12	M1	mg/kg wet		28	75 - 125

**Lab Sample ID: 12C1200-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1200**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1200\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec.	RPD	Limit
Arsenic	38.9		3.59	47.4	M1	mg/kg dry	✉	236	75 - 125	4

**Lab Sample ID: 12C1200-DUP1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1200**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1200\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	Limit
Arsenic	<0.192		<1.00		mg/kg wet			20

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 6010C - Total Metals by SW 846 Series Methods

**Lab Sample ID: 12C1099-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1099**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1099\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.0100		0.0100		mg/L		03/26/12 10:31	03/26/12 19:46	1.00
Chromium	<0.0200		0.0200		mg/L		03/26/12 10:31	03/26/12 19:46	1.00
Silver	<0.0200		0.0200		mg/L		03/26/12 10:31	03/26/12 19:46	1.00

**Lab Sample ID: 12C1099-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1099**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1099\_P**

Analyte	Spike	LCS		Unit	D	%Rec.	Limits
		Added	Result				
Barium		1.00	0.988	mg/L		99	80 - 115
Chromium		1.00	1.11	mg/L		111	85 - 115
Silver		1.00	1.00	mg/L		100	80 - 110

**Lab Sample ID: 12C1099-MS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1099**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1099\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Barium	0.344		1.00	1.42		mg/L		108	75 - 110
Chromium	0.00183		1.00	1.05		mg/L		104	75 - 115
Silver	<0.00170		1.00	0.966		mg/L		97	75 - 110

**Lab Sample ID: 12C1099-MS2**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1099**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1099\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Barium	0.138		16.7	17.9		mg/L		107	75 - 110
Chromium	1900		16.7	1900		mg/L		-32	75 - 115
Silver	0.632		16.7	17.2		mg/L		99	75 - 110

**Lab Sample ID: 12C1099-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1099**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1099\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec.	RPD
	Result	Qualifier	Added	Result	Qualifier				
Barium	0.344		1.00	1.33		mg/L		99	75 - 110
Chromium	0.00183		1.00	0.961		mg/L		96	75 - 115
Silver	<0.00170		1.00	0.886		mg/L		89	75 - 110

**Lab Sample ID: 12C1099-DUP1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1099**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1099\_P**

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD
	Result	Qualifier	Result	Qualifier			
Barium	0.0431		0.0440		mg/L		2
Chromium	0.107		0.104		mg/L		4
Silver	<0.00170		0.00545		mg/L		20

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

**Lab Sample ID: 12C1198-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Barium	<0.500		0.500		mg/kg wet		03/28/12 10:35	03/28/12 17:14	1.00
Cadmium	<1.00		1.00		mg/kg wet		03/28/12 10:35	03/28/12 17:14	1.00
Chromium	<1.00		1.00		mg/kg wet		03/28/12 10:35	03/28/12 17:14	1.00
Lead	<5.00		5.00		mg/kg wet		03/28/12 10:35	03/28/12 17:14	1.00
Selenium	<7.50		7.50		mg/kg wet		03/28/12 10:35	03/28/12 17:14	1.00
Silver	<1.00		1.00		mg/kg wet		03/28/12 10:35	03/28/12 17:14	1.00

**Lab Sample ID: 12C1198-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Spike Added	LCS			D	%Rec.	Limits
		Result	Qualifier	Unit			
Barium	49.3	45.5		mg/kg wet		92	80 - 110
Cadmium	49.3	47.4		mg/kg wet		96	80 - 115
Chromium	49.3	49.9		mg/kg wet		101	85 - 110
Lead	98.5	90.4		mg/kg wet		92	80 - 115
Selenium	197	182		mg/kg wet		92	85 - 110
Silver	49.3	46.9		mg/kg wet		95	80 - 120

**Lab Sample ID: 12C1198-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier	Unit		
Barium	6.46		137	130		mg/kg dry	⊗	75 - 125
Cadmium	<0.208		137	129		mg/kg dry	⊗	75 - 125
Chromium	13.2		137	142		mg/kg dry	⊗	75 - 120
Lead	<2.37		275	251		mg/kg dry	⊗	75 - 125
Selenium	<8.75		550	507		mg/kg dry	⊗	75 - 115
Silver	<0.386		137	124		mg/kg dry	⊗	75 - 110

**Lab Sample ID: 12C1198-MS2**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: SB-1 0-2'**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier	Unit		
Barium	90.9	M1	123	364	M1	mg/kg dry	⊗	75 - 125
Cadmium	<12.3	IE	123	115		mg/kg dry	⊗	75 - 125
Chromium	<12.3	IE	123	135		mg/kg dry	⊗	75 - 120
Lead	63.8		247	321		mg/kg dry	⊗	75 - 125
Selenium	<92.6	IE	494	450		mg/kg dry	⊗	75 - 115

**Lab Sample ID: 12C1198-MS2**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: SB-1 0-2'**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier	Unit		
Silver	<12.3	IE M1	123	11.9	M1	mg/kg dry	⊗	75 - 110

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 6010C - Total Metals by SW 846 Series Methods (Continued)

**Lab Sample ID: 12C1198-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup			%Rec.	RPD	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Barium	6.46		134	130		mg/kg dry	⊗	93	75 - 125	0.5	20
Cadmium	<0.208		134	128		mg/kg dry	⊗	96	75 - 125	0.7	20
Chromium	13.2		134	144		mg/kg dry	⊗	98	75 - 120	2	20
Lead	<2.37		268	248		mg/kg dry	⊗	93	75 - 125	1	20
Selenium	<8.75		535	502		mg/kg dry	⊗	94	75 - 115	1	20
Silver	<0.386		134	117		mg/kg dry	⊗	88	75 - 110	5	20

**Lab Sample ID: 12C1198-DUP1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: DUP-7**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Sample	Sample	Duplicate	Duplicate			%Rec.	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	RPD	Limit
Barium	292		272		mg/kg dry	⊗	7	20		
Cadmium	<3.68	IE	<1.23		mg/kg dry	⊗		20		
Chromium	18.1		16.7		mg/kg dry	⊗	8	20		
Lead	39.6		38.7		mg/kg dry	⊗	2	20		
Selenium	<27.6	IE	<9.19		mg/kg dry	⊗		20		

**Lab Sample ID: 12C1198-DUP1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1198**

**Client Sample ID: DUP-7**

**Prep Type: Total**

**Prep Batch: 12C1198\_P**

Analyte	Sample	Sample	Duplicate	Duplicate			%Rec.	RPD	RPD	Limit
	Result	Qualifier	Result	Qualifier	Unit	D	RPD	Limit	RPD	Limit
Silver	<3.68	IE	0.342		mg/kg dry	⊗	125	20		

## Method: EPA 350.1 - General Chemistry Parameters

**Lab Sample ID: 12C1173-BLK1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1173**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1173\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Ammonia as N	<38.9		38.9		mg/kg wet		03/27/12 17:03	03/28/12 19:06	1.00

**Lab Sample ID: 12C1173-BS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1173**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1173\_P**

Analyte	Spike	LCS	LCS			%Rec.
	Added	Result	Qualifier	Unit	D	Limits
Ammonia as N	356	363		mg/kg wet	102	90 - 110

**Lab Sample ID: 12C1173-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1173**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1173\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike			%Rec.
	Result	Qualifier	Added	Result	Qualifier	Unit	D	Limits
Ammonia as N	39100		11100	50300		mg/kg dry	⊗	101

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: EPA 350.1 - General Chemistry Parameters (Continued)

**Lab Sample ID: 12C1173-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1173**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1173\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Ammonia as N	39100		11200	49500		mg/kg dry	⊗	93	90 - 110	2 10

**Lab Sample ID: 12C1189-BLK1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1189**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 12C1189\_P**

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia as N	<0.200		0.200		mg/L		03/28/12 09:41	03/28/12 13:43	1.00

**Lab Sample ID: 12C1189-BS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1189**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 12C1189\_P**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec.	Limits
Ammonia as N	11.8	12.2		mg/L		103	90 - 110

**Lab Sample ID: 12C1189-MS1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1189**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1189\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec.	Limits
Ammonia as N	<0.0219		2.50	2.37		mg/L		95	90 - 110

**Lab Sample ID: 12C1189-MSD1**

**Matrix: Water - NonPotable**

**Analysis Batch: 12C1189**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1189\_P**

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec.	RPD	RPD Limit
Ammonia as N	<0.0219		2.50	2.38		mg/L		95	90 - 110	0.4 10

## Method: SM 2540 G - General Chemistry Parameters

**Lab Sample ID: 12C1057-DUP1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1057**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1057\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	76.0		78.2		%		3	10

**Lab Sample ID: 12C1057-DUP2**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1057**

**Client Sample ID: Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1057\_P**

Analyte	Sample Result	Sample Qualifier	Duplicate Result	Duplicate Qualifier	Unit	D	RPD	RPD Limit
% Solids	77.1		73.7		%		4	10

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SM 2540 G - General Chemistry Parameters (Continued)

Lab Sample ID: 12C1058-DUP1

Matrix: Solid/Soil

Analysis Batch: 12C1058

Client Sample ID: SB-1 14-16'

Prep Type: Total

Prep Batch: 12C1058\_P

Analyte	Sample	Sample	Duplicate	Duplicate	Unit	D	RPD	RPD Limit
	Result	Qualifier	Result	Qualifier				
% Solids	69.8		68.3		%		2	10

## Method: SM 4500 NO3 E/00 - General Chemistry Parameters

Lab Sample ID: 12C1029-BLK1

Matrix: Water - NonPotable

Analysis Batch: 12C1029

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12C1029\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	<0.100		0.100		mg/L		03/23/12 13:07	03/23/12 13:07	1.00

Lab Sample ID: 12C1029-BS1

Matrix: Water - NonPotable

Analysis Batch: 12C1029

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12C1029\_P

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Nitrate as N	19.3	19.4		mg/L		100	90 - 110

Lab Sample ID: 12C1029-MS1

Matrix: Water - NonPotable

Analysis Batch: 12C1029

Client Sample ID: Matrix Spike

Prep Type: Total

Prep Batch: 12C1029\_P

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	Unit	D	%Rec.	Limits
	Result	Qualifier	Added	Result	Qualifier				
Nitrate as N	45.6		2500	59.5	M1	mg/L		0.6	75 - 125

Lab Sample ID: 12C1029-MSD1

Matrix: Water - NonPotable

Analysis Batch: 12C1029

Client Sample ID: Matrix Spike Duplicate

Prep Type: Total

Prep Batch: 12C1029\_P

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	Unit	D	%Rec.	Limits	RPD	Limit
	Result	Qualifier	Added	Result	Qualifier						
Nitrate as N	45.6		2500	58.9	M1	mg/L		0.5	75 - 125	1	20

## Method: SW 9210A - General Chemistry Parameters

Lab Sample ID: 12C1176-BLK1

Matrix: Solid/Soil

Analysis Batch: 12C1176

Client Sample ID: Method Blank

Prep Type: Total

Prep Batch: 12C1176\_P

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Nitrate as N	<5.00		5.00		mg/kg wet		03/27/12 17:55	03/27/12 17:55	1.00

Lab Sample ID: 12C1176-BS1

Matrix: Solid/Soil

Analysis Batch: 12C1176

Client Sample ID: Lab Control Sample

Prep Type: Total

Prep Batch: 12C1176\_P

Analyte	Spike	LCS	LCS	Unit	D	%Rec.	Limits
	Added	Result	Qualifier				
Nitrate as N	4.23	4.57		mg/kg wet		108	90 - 110

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: SW 9210A - General Chemistry Parameters (Continued)

**Lab Sample ID: 12C1176-MS1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1176**

**Client Sample ID: Matrix Spike**

**Prep Type: Total**

**Prep Batch: 12C1176\_P**

Analyte	Sample	Sample	Spike	Matrix Spike	Matrix Spike	%Rec.			
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits
Nitrate as N	<45.5		439	296	M1	mg/kg dry	⊗	67	75 - 125

**Lab Sample ID: 12C1176-MSD1**

**Matrix: Solid/Soil**

**Analysis Batch: 12C1176**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total**

**Prep Batch: 12C1176\_P**

Analyte	Sample	Sample	Spike	Matrix Spike Dup	Matrix Spike Dup	%Rec.			RPD	Limit	
	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Nitrate as N	<45.5		441	327	M1	mg/kg dry	⊗	74	75 - 125	10	15

## Method: 8151A D Dry mg/Kg - Herbicides (GC)

**Lab Sample ID: 145058-77**

**Matrix: Soil**

**Analysis Batch: 145135**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 145135\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-D	<0.33		0.33		mg/Kg dry		04/02/12 20:35	04/04/12 10:51	10
Silvex (2,4,5-TP)	<0.33		0.33		mg/Kg dry		04/02/12 20:35	04/04/12 10:51	10

**Lab Sample ID: 145058-78**

**Matrix: Soil**

**Analysis Batch: 145135**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 145135\_P**

Analyte	Spike	LCS	LCS	%Rec.		
	Added	Result	Qualifier	Unit	D	Limits
2,4-D	1.33	0.471		mg/Kg dry	35	23 - 125
Silvex (2,4,5-TP)	1.33	0.756		mg/Kg dry	57	36 - 114

## Method: 8151A D Dry ug/Kg - Herbicides (GC)

**Lab Sample ID: 145058-77**

**Matrix: Soil**

**Analysis Batch: 145135**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 145135\_P**

Surrogate	Blank	Blank	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCAA	60		32 - 122	04/02/12 20:35	04/04/12 10:51	10

**Lab Sample ID: 145058-78**

**Matrix: Soil**

**Analysis Batch: 145135**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 145135\_P**

Surrogate	LCS	LCS	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCAA	57		32 - 122	04/02/12 20:35	04/04/12 10:51	10

# QC Sample Results

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Method: 8151A D ug/L - Herbicides (GC)

**Lab Sample ID: 144745-61**

**Matrix: Water**

**Analysis Batch: 144594**

**Client Sample ID: Method Blank**

**Prep Type: Total**

**Prep Batch: 144594\_P**

Analyte	Blank	Blank	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,4-D	<1.0		1.0		ug/L		03/28/12 08:50	03/31/12 01:36	1
Silvex (2,4,5-TP)	<1.0		1.0		ug/L		03/28/12 08:50	03/31/12 01:36	1
<b>Surrogate</b>	<b>Blank</b>	<b>Blank</b>					<b>Prepared</b>	<b>Analyzed</b>	<b>Dil Fac</b>
DCAA	%Recovery	Qualifier	Limits				03/28/12 08:50	03/31/12 01:36	1
	72		30 - 129						

**Lab Sample ID: 144745-62**

**Matrix: Water**

**Analysis Batch: 144594**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total**

**Prep Batch: 144594\_P**

Analyte	Spike Added	LCs	LCs	Unit	D	%Rec	Limits	%Rec.
		Result	Qualifier					
2,4-D	4.00	1.86		ug/L		47	20 - 115	
Silvex (2,4,5-TP)	4.00	3.43		ug/L		86	32 - 131	
<b>Surrogate</b>	<b>LCs</b>	<b>LCs</b>						
DCAA	%Recovery	Qualifier	Limits					
	81		30 - 129					

**Lab Sample ID: 144745-63**

**Matrix: Water**

**Analysis Batch: 144594**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total**

**Prep Batch: 144594\_P**

Analyte	Spike Added	LCs Dup	LCs Dup	Unit	D	%Rec	Limits	RPD	Limit
		Result	Qualifier						
2,4-D	4.00	2.65	*	ug/L		66	20 - 115	35	20
Silvex (2,4,5-TP)	4.00	3.40		ug/L		85	32 - 131	1	20
<b>Surrogate</b>	<b>LCs Dup</b>	<b>LCs Dup</b>							
DCAA	%Recovery	Qualifier	Limits						
	85		30 - 129						

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## GCMS Volatiles

### Analysis Batch: 12C1108

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-15	SB-1	Total	Ground Water	SW 9041A	12C1108_P

### Analysis Batch: 12C1178

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1178-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12C1178_P
12C1178-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12C1178_P
12C1178-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12C1178_P
CVC1446-02	DUP-6	Total	Soil	SW 8260B	12C1178_P
CVC1446-04	SB-2 2-4'	Total	Soil	SW 8260B	12C1178_P
CVC1446-11	SB-3 0-2'	Total	Soil	SW 8260B	12C1178_P
CVC1446-14	SB-1 14-16'	Total	Soil	SW 8260B	12C1178_P

### Analysis Batch: 12C1213

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1213-BLK1	Method Blank	Total	Water -	SW 8260B	12C1213_P
12C1213-BS1	Lab Control Sample	Total	NonPotable	SW 8260B	12C1213_P
12C1213-MS1	Matrix Spike	Total	Water -	SW 8260B	12C1213_P
12C1213-MSD1	Matrix Spike Duplicate	Total	NonPotable	SW 8260B	12C1213_P
CVC1446-05	SB-2	Total	Ground Water	SW 8260B	12C1213_P
CVC1446-08	DUP-2	Total	Ground Water	SW 8260B	12C1213_P
CVC1446-09	Field Blank	Total	Water	SW 8260B	12C1213_P
CVC1446-10	Trip Blank	Total	Water	SW 8260B	12C1213_P
CVC1446-12	SB-3	Total	Ground Water	SW 8260B	12C1213_P
CVC1446-15	SB-1	Total	Ground Water	SW 8260B	12C1213_P
CVC1446-19	SB-4	Total	Ground Water	SW 8260B	12C1213_P

### Analysis Batch: 12C1224

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-05	SB-2	Total	Ground Water	SW 9041A	12C1224_P
CVC1446-08	DUP-2	Total	Ground Water	SW 9041A	12C1224_P
CVC1446-09	Field Blank	Total	Water	SW 9041A	12C1224_P
CVC1446-10	Trip Blank	Total	Water	SW 9041A	12C1224_P
CVC1446-12	SB-3	Total	Ground Water	SW 9041A	12C1224_P
CVC1446-19	SB-4	Total	Ground Water	SW 9041A	12C1224_P

### Analysis Batch: 12C1241

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1241-BLK1	Method Blank	Total	Water -	SW 8260B	12C1241_P
12C1241-BS1	Lab Control Sample	Total	NonPotable	SW 8260B	12C1241_P
12C1241-MS1	Matrix Spike	Total	Water -	SW 8260B	12C1241_P
12C1241-MSD1	Matrix Spike Duplicate	Total	NonPotable	SW 8260B	12C1241_P
CVC1446-15 - RE1	SB-1	Total	Water -	SW 8260B	12C1241_P

### Analysis Batch: 12C1252

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1252-BLK1	Method Blank	Total	Solid/Soil	SW 8260B	12C1252_P

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

## GCMS Volatiles (Continued)

### Analysis Batch: 12C1252 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1252-BS1	Lab Control Sample	Total	Solid/Soil	SW 8260B	12C1252_P
12C1252-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 8260B	12C1252_P
CVC1446-14 - RE1	SB-1 14-16'	Total	Soil	SW 8260B	12C1252_P
CVC1446-18	SB-4 12-14'	Total	Soil	SW 8260B	12C1252_P

### Prep Batch: 12C1108\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-15	SB-1	Total	Ground Water	Default Prep VOC	8

### Prep Batch: 12C1178\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1178-BLK1	Method Blank	Total	Solid/Soil	SW 5035	10
12C1178-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	11
12C1178-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	
CVC1446-02	DUP-6	Total	Soil	SW 5035	12
CVC1446-04	SB-2 2-4'	Total	Soil	SW 5035	
CVC1446-11	SB-3 0-2'	Total	Soil	SW 5035	
CVC1446-14	SB-1 14-16'	Total	Soil	SW 5035	13

### Prep Batch: 12C1213\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1213-BLK1	Method Blank	Total	Water - NonPotable	SW 5030B	
12C1213-BS1	Lab Control Sample	Total	Water - NonPotable	SW 5030B	
12C1213-MS1	Matrix Spike	Total	Water - NonPotable	SW 5030B	
12C1213-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 5030B	
CVC1446-05	SB-2	Total	Ground Water	SW 5030B	
CVC1446-08	DUP-2	Total	Ground Water	SW 5030B	
CVC1446-09	Field Blank	Total	Water	SW 5030B	
CVC1446-10	Trip Blank	Total	Water	SW 5030B	
CVC1446-12	SB-3	Total	Ground Water	SW 5030B	
CVC1446-15	SB-1	Total	Ground Water	SW 5030B	
CVC1446-19	SB-4	Total	Ground Water	SW 5030B	

### Prep Batch: 12C1224\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-05	SB-2	Total	Ground Water	Default Prep VOC	
CVC1446-08	DUP-2	Total	Ground Water	Default Prep VOC	
CVC1446-09	Field Blank	Total	Water	Default Prep VOC	
CVC1446-10	Trip Blank	Total	Water	Default Prep VOC	
CVC1446-12	SB-3	Total	Ground Water	Default Prep VOC	
CVC1446-19	SB-4	Total	Ground Water	Default Prep VOC	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## GCMS Volatiles (Continued)

### Prep Batch: 12C1241\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1241-BLK1	Method Blank	Total	Water - NonPotable	SW 5030B	5
12C1241-BS1	Lab Control Sample	Total	Water - NonPotable	SW 5030B	6
12C1241-MS1	Matrix Spike	Total	Water - NonPotable	SW 5030B	7
12C1241-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 5030B	8
CVC1446-15 - RE1	SB-1	Total	Ground Water	SW 5030B	9

### Prep Batch: 12C1252\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1252-BLK1	Method Blank	Total	Solid/Soil	SW 5035	10
12C1252-BS1	Lab Control Sample	Total	Solid/Soil	SW 5035	11
12C1252-BSD1	Lab Control Sample Dup	Total	Solid/Soil	SW 5035	12
CVC1446-14 - RE1	SB-1 14-16'	Total	Soil	SW 5035	13
CVC1446-18	SB-4 12-14'	Total	Soil	SW 5035	

## GCMS Semivolatiles

### Analysis Batch: V000522

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1035-BS1	Lab Control Sample	Total	Solid/Soil	SW 8270D	12C1035_P
12C1035-MS1	Matrix Spike	Total	Solid/Soil	SW 8270D	12C1035_P
12C1035-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 8270D	12C1035_P

### Analysis Batch: V000528

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1035-BLK1	Method Blank	Total	Solid/Soil	SW 8270D	12C1035_P
CVC1446-18	SB-4 12-14'	Total	Soil	SW 8270D	12C1035_P

### Analysis Batch: V000529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-03	SB-2 0-2'	Total	Soil	SW 8270D	12C1035_P
CVC1446-06	DUP-1	Total	Soil	SW 8270D	12C1035_P
CVC1446-11	SB-3 0-2'	Total	Soil	SW 8270D	12C1035_P
CVC1446-13	SB-1 0-2'	Total	Soil	SW 8270D	12C1035_P
CVC1446-14	SB-1 14-16'	Total	Soil	SW 8270D	12C1035_P
CVC1446-17	SB-4 0-2'	Total	Soil	SW 8270D	12C1035_P

### Analysis Batch: V000532

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-14 - RE1	SB-1 14-16'	Total	Soil	SW 8270D	12C1035_P

### Analysis Batch: V000550

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1144-BLK1	Method Blank	Total	Water - NonPotable	SW 8270D	12C1144_P
12C1144-BS1	Lab Control Sample	Total	Water - NonPotable	SW 8270D	12C1144_P
12C1144-BSD1	Lab Control Sample Dup	Total	Water - NonPotable	SW 8270D	12C1144_P
CVC1446-05	SB-2	Total	Ground Water	SW 8270D	12C1144_P
CVC1446-08	DUP-2	Total	Ground Water	SW 8270D	12C1144_P

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## GCMS Semivolatiles (Continued)

### Analysis Batch: V000550 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-09	Field Blank	Total	Water	SW 8270D	12C1144_P
CVC1446-12	SB-3	Total	Ground Water	SW 8270D	12C1144_P
CVC1446-15	SB-1	Total	Ground Water	SW 8270D	12C1144_P
CVC1446-19	SB-4	Total	Ground Water	SW 8270D	12C1144_P

### Analysis Batch: V000551

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-15 - RE1	SB-1	Total	Ground Water	SW 8270D	12C1144_P

### Prep Batch: 12C1035\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1035-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GCMS	10
12C1035-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GCMS	11
12C1035-MS1	Matrix Spike	Total	Solid/Soil	SW 3546 GCMS	12
12C1035-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3546 GCMS	13
CVC1446-03	SB-2 0-2'	Total	Soil	SW 3546 GCMS	
CVC1446-06	DUP-1	Total	Soil	SW 3546 GCMS	
CVC1446-11	SB-3 0-2'	Total	Soil	SW 3546 GCMS	
CVC1446-13	SB-1 0-2'	Total	Soil	SW 3546 GCMS	
CVC1446-14	SB-1 14-16'	Total	Soil	SW 3546 GCMS	
CVC1446-14 - RE1	SB-1 14-16'	Total	Soil	SW 3546 GCMS	
CVC1446-17	SB-4 0-2'	Total	Soil	SW 3546 GCMS	
CVC1446-18	SB-4 12-14'	Total	Soil	SW 3546 GCMS	

### Prep Batch: 12C1144\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1144-BLK1	Method Blank	Total	Water - NonPotable	SW 3510C_MS	
12C1144-BS1	Lab Control Sample	Total	Water - NonPotable	SW 3510C_MS	
12C1144-BSD1	Lab Control Sample Dup	Total	Water - NonPotable	SW 3510C_MS	
CVC1446-05	SB-2	Total	Ground Water	SW 3510C_MS	
CVC1446-08	DUP-2	Total	Ground Water	SW 3510C_MS	
CVC1446-09	Field Blank	Total	Water	SW 3510C_MS	
CVC1446-12	SB-3	Total	Ground Water	SW 3510C_MS	
CVC1446-15	SB-1	Total	Ground Water	SW 3510C_MS	
CVC1446-15 - RE1	SB-1	Total	Ground Water	SW 3510C_MS	
CVC1446-19	SB-4	Total	Ground Water	SW 3510C_MS	

## GC Semivolatiles

### Analysis Batch: V000531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1084-BLK1	Method Blank	Total	Solid/Soil	SW 8081A	12C1084_P
12C1084-BS1	Lab Control Sample	Total	Solid/Soil	SW 8081A	12C1084_P
12C1084-BS2	Lab Control Sample	Total	Solid/Soil	SW 8081A	12C1084_P
12C1084-MS1	Matrix Spike	Total	Solid/Soil	SW 8081A	12C1084_P
12C1084-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 8081A	12C1084_P
CVC1446-01	DUP-4	Total	Soil	SW 8081A	12C1084_P
CVC1446-13	SB-1 0-2'	Total	Soil	SW 8081A	12C1084_P
CVC1446-17	SB-4 0-2'	Total	Soil	SW 8081A	12C1084_P

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## GC Semivolatiles (Continued)

### Analysis Batch: V000538

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1086-BLK1	Method Blank	Total	Solid/Soil	OA-2 - 8015B	12C1086_P
12C1086-BS1	Lab Control Sample	Total	Solid/Soil	OA-2 - 8015B	12C1086_P
12C1086-MS1	Matrix Spike	Total	Solid/Soil	OA-2 - 8015B	12C1086_P
12C1086-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	OA-2 - 8015B	12C1086_P
CVC1446-04	SB-2 2-4'	Total	Soil	OA-2 - 8015B	12C1086_P
CVC1446-07	DUP-3	Total	Soil	OA-2 - 8015B	12C1086_P
CVC1446-11	SB-3 0-2'	Total	Soil	OA-2 - 8015B	12C1086_P
CVC1446-14	SB-1 14-16'	Total	Soil	OA-2 - 8015B	12C1086_P
CVC1446-18	SB-4 12-14'	Total	Soil	OA-2 - 8015B	12C1086_P

### Analysis Batch: V000542

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1093-BLK1	Method Blank	Total	Water -	OA-2 - 8015B	12C1093_P
12C1093-BS1	Lab Control Sample	Total	NonPotable		
12C1093-BSD1	Lab Control Sample Dup	Total	Water -	OA-2 - 8015B	12C1093_P
CVC1446-05	SB-2	Total	NonPotable		
CVC1446-08	DUP-2	Total	Ground Water	OA-2 - 8015B	12C1093_P
CVC1446-09	Field Blank	Total	Ground Water	OA-2 - 8015B	12C1093_P
CVC1446-12	SB-3	Total	Water	OA-2 - 8015B	12C1093_P
CVC1446-15	SB-1	Total	Ground Water	OA-2 - 8015B	12C1093_P
CVC1446-19	SB-4	Total	Ground Water	OA-2 - 8015B	12C1093_P

### Analysis Batch: V000563

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1147-BS1	Lab Control Sample	Total	Water -	SW 8081A	12C1147_P
12C1147-BS2	Lab Control Sample	Total	NonPotable		
12C1147-BSD1	Lab Control Sample Dup	Total	Water -	SW 8081A	12C1147_P
CVC1446-09	Field Blank	Total	NonPotable		
CVC1446-15	SB-1	Total	Water	SW 8081A	12C1147_P
CVC1446-19	SB-4	Total	Ground Water	SW 8081A	12C1147_P
CVC1446-20	DUP-5	Total	Ground Water	SW 8081A	12C1147_P

### Analysis Batch: V000605

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1147-BLK1	Method Blank	Total	Water -	SW 8081A	12C1147_P

### Prep Batch: 12C1084\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1084-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	
12C1084-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12C1084-BS2	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	
12C1084-MS1	Matrix Spike	Total	Solid/Soil	SW 3546 GC	
12C1084-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3546 GC	
CVC1446-01	DUP-4	Total	Soil	SW 3546 GC	
CVC1446-13	SB-1 0-2'	Total	Soil	SW 3546 GC	
CVC1446-17	SB-4 0-2'	Total	Soil	SW 3546 GC	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## GC Semivolatiles (Continued)

### Prep Batch: 12C1086\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1086-BLK1	Method Blank	Total	Solid/Soil	SW 3546 GC	1
12C1086-BS1	Lab Control Sample	Total	Solid/Soil	SW 3546 GC	2
12C1086-MS1	Matrix Spike	Total	Solid/Soil	SW 3546 GC	3
12C1086-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3546 GC	4
CVC1446-04	SB-2 2-4'	Total	Soil	SW 3546 GC	5
CVC1446-07	DUP-3	Total	Soil	SW 3546 GC	6
CVC1446-11	SB-3 0-2'	Total	Soil	SW 3546 GC	7
CVC1446-14	SB-1 14-16'	Total	Soil	SW 3546 GC	8
CVC1446-18	SB-4 12-14'	Total	Soil	SW 3546 GC	9

### Prep Batch: 12C1093\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1093-BLK1	Method Blank	Total	Water -	SW 3510C GC	10
12C1093-BS1	Lab Control Sample	Total	NonPotable		11
12C1093-BSD1	Lab Control Sample Dup	Total	Water -	SW 3510C GC	12
CVC1446-05	SB-2	Total	NonPotable		13
CVC1446-08	DUP-2	Total	Ground Water	SW 3510C GC	
CVC1446-09	Field Blank	Total	Ground Water	SW 3510C GC	
CVC1446-12	SB-3	Total	Water	SW 3510C GC	
CVC1446-15	SB-1	Total	Ground Water	SW 3510C GC	
CVC1446-19	SB-4	Total	Ground Water	SW 3510C GC	

### Prep Batch: 12C1147\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1147-BLK1	Method Blank	Total	Water -	SW 3510C GC	
12C1147-BS1	Lab Control Sample	Total	NonPotable		
12C1147-BS2	Lab Control Sample	Total	Water -	SW 3510C GC	
12C1147-BSD1	Lab Control Sample Dup	Total	NonPotable		
CVC1446-09	Field Blank	Total	Water -	SW 3510C GC	
CVC1446-15	SB-1	Total	NonPotable		
CVC1446-19	SB-4	Total	Water	SW 3510C GC	
CVC1446-20	DUP-5	Total	Ground Water	SW 3510C GC	

## Mercury

### Analysis Batch: 12C1141

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1141-BLK1	Method Blank	Total	Water -	SW 7470A	12C1141_P
12C1141-BS1	Lab Control Sample	Total	NonPotable		
12C1141-MS1	Matrix Spike	Total	Water -	SW 7470A	
12C1141-MSD1	Matrix Spike Duplicate	Total	NonPotable		
CVC1446-09	Field Blank	Total	Water	SW 7470A	
CVC1446-15	SB-1	Total	Ground Water	SW 7470A	12C1141_P
CVC1446-19	SB-4	Total	Ground Water	SW 7470A	12C1141_P

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Mercury (Continued)

### Analysis Batch: 12C1141 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-20	DUP-5	Total	Ground Water	SW 7470A	12C1141_P

### Analysis Batch: 12C1350

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1350-BLK1	Method Blank	Total	Solid/Soil	SW 7471B	12C1350_P
12C1350-BS1	Lab Control Sample	Total	Solid/Soil	SW 7471B	12C1350_P
12C1350-MS1	Matrix Spike	Total	Solid/Soil	SW 7471B	12C1350_P
12C1350-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 7471B	12C1350_P
CVC1446-13	SB-1 0-2'	Total	Soil	SW 7471B	12C1350_P
CVC1446-16	DUP-7	Total	Soil	SW 7471B	12C1350_P
CVC1446-17	SB-4 0-2'	Total	Soil	SW 7471B	12C1350_P

### Prep Batch: 12C1141\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1141-BLK1	Method Blank	Total	Water -	EPA 245.2/SW	11
12C1141-BS1	Lab Control Sample	Total	NonPotable	7470A Prep	12
12C1141-MS1	Matrix Spike	Total	Water -	EPA 245.2/SW	13
12C1141-MSD1	Matrix Spike Duplicate	Total	NonPotable	7470A Prep	
CVC1446-09	Field Blank	Total	Water -	EPA 245.2/SW	
CVC1446-15	SB-1	Total	NonPotable	7470A Prep	
CVC1446-19	SB-4	Total	Water	EPA 245.2/SW	
CVC1446-20	DUP-5	Total	Ground Water	7470A Prep	
			Ground Water	EPA 245.2/SW	
			Ground Water	7470A Prep	
			Ground Water	EPA 245.2/SW	
			Ground Water	7470A Prep	

### Prep Batch: 12C1350\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1350-BLK1	Method Blank	Total	Solid/Soil	EPA 245.2/SW	
12C1350-BS1	Lab Control Sample	Total	Solid/Soil	7470A Prep	
12C1350-MS1	Matrix Spike	Total	Solid/Soil	EPA 245.2/SW	
12C1350-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	7470A Prep	
CVC1446-13	SB-1 0-2'	Total	Soil	EPA 245.2/SW	
CVC1446-16	DUP-7	Total	Soil	7470A Prep	
CVC1446-17	SB-4 0-2'	Total	Soil	EPA 245.2/SW	
			Soil	7470A Prep	

## Metals-GFAA

### Analysis Batch: 12C1103

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1103-BLK1	Method Blank	Total	Water -	SW 7010	
12C1103-BS1	Lab Control Sample	Total	NonPotable	SW 7010	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Metals-GFAA (Continued)

### Analysis Batch: 12C1103 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1103-DUP1	Duplicate	Total	Water - NonPotable	SW 7010	12C1103_P
12C1103-MS1	Matrix Spike	Total	Water - NonPotable	SW 7010	12C1103_P
12C1103-MS2	Matrix Spike	Total	Water - NonPotable	SW 7010	12C1103_P
12C1103-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 7010	12C1103_P
CVC1446-09	Field Blank	Total	Water	SW 7010	12C1103_P
CVC1446-15	SB-1	Total	Ground Water	SW 7010	12C1103_P
CVC1446-19	SB-4	Total	Ground Water	SW 7010	12C1103_P
CVC1446-20	DUP-5	Total	Ground Water	SW 7010	12C1103_P

### Analysis Batch: 12C1200

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1200-BLK1	Method Blank	Total	Solid/Soil	SW 7010	12C1200_P
12C1200-BS1	Lab Control Sample	Total	Solid/Soil	SW 7010	12C1200_P
12C1200-DUP1	Duplicate	Total	Solid/Soil	SW 7010	12C1200_P
12C1200-MS1	Matrix Spike	Total	Solid/Soil	SW 7010	12C1200_P
12C1200-MS2	Matrix Spike	Total	Solid/Soil	SW 7010	12C1200_P
12C1200-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 7010	12C1200_P
CVC1446-13	SB-1 0-2'	Total	Soil	SW 7010	12C1200_P
CVC1446-16	DUP-7	Total	Soil	SW 7010	12C1200_P
CVC1446-17	SB-4 0-2'	Total	Soil	SW 7010	12C1200_P

### Prep Batch: 12C1103\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1103-BLK1	Method Blank	Total	Water - NonPotable	SW 3020A/EPA 200.9	
12C1103-BS1	Lab Control Sample	Total	Water - NonPotable	SW 3020A/EPA 200.9	
12C1103-DUP1	Duplicate	Total	Water - NonPotable	SW 3020A/EPA 200.9	
12C1103-MS1	Matrix Spike	Total	Water - NonPotable	SW 3020A/EPA 200.9	
12C1103-MS2	Matrix Spike	Total	Water - NonPotable	SW 3020A/EPA 200.9	
12C1103-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 3020A/EPA 200.9	
CVC1446-09	Field Blank	Total	Water	SW 3020A/EPA 200.9	
CVC1446-15	SB-1	Total	Ground Water	SW 3020A/EPA 200.9	
CVC1446-19	SB-4	Total	Ground Water	SW 3020A/EPA 200.9	
CVC1446-20	DUP-5	Total	Ground Water	SW 3020A/EPA 200.9	

### Prep Batch: 12C1200\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1200-BLK1	Method Blank	Total	Solid/Soil	SW 3050B GFAA	
12C1200-BS1	Lab Control Sample	Total	Solid/Soil	SW 3050B GFAA	
12C1200-DUP1	Duplicate	Total	Solid/Soil	SW 3050B GFAA	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Metals-GFAA (Continued)

### Prep Batch: 12C1200\_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1200-MS1	Matrix Spike	Total	Solid/Soil	SW 3050B GFAA	5
12C1200-MS2	Matrix Spike	Total	Solid/Soil	SW 3050B GFAA	6
12C1200-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3050B GFAA	7
CVC1446-13	SB-1 0-2'	Total	Soil	SW 3050B GFAA	8
CVC1446-16	DUP-7	Total	Soil	SW 3050B GFAA	9
CVC1446-17	SB-4 0-2'	Total	Soil	SW 3050B GFAA	10

## Metals-ICP

### Analysis Batch: 12C1099

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1099-BLK1	Method Blank	Total	Water - NonPotable	SW 6010C	12C1099_P
12C1099-BS1	Lab Control Sample	Total	Water - NonPotable	SW 6010C	12C1099_P
12C1099-DUP1	Duplicate	Total	Water - NonPotable	SW 6010C	12C1099_P
12C1099-MS1	Matrix Spike	Total	Water - NonPotable	SW 6010C	12C1099_P
12C1099-MS2	Matrix Spike	Total	Water - NonPotable	SW 6010C	12C1099_P
12C1099-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 6010C	12C1099_P
CVC1446-09	Field Blank	Total	Water	SW 6010C	12C1099_P
CVC1446-15	SB-1	Total	Ground Water	SW 6010C	12C1099_P
CVC1446-19	SB-4	Total	Ground Water	SW 6010C	12C1099_P
CVC1446-20	DUP-5	Total	Ground Water	SW 6010C	12C1099_P

### Analysis Batch: 12C1198

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1198-BLK1	Method Blank	Total	Solid/Soil	SW 6010C	12C1198_P
12C1198-BS1	Lab Control Sample	Total	Solid/Soil	SW 6010C	12C1198_P
12C1198-DUP1	DUP-7	Total	Solid/Soil	SW 6010C	12C1198_P
12C1198-MS1	Matrix Spike	Total	Solid/Soil	SW 6010C	12C1198_P
12C1198-MS2	SB-1 0-2'	Total	Solid/Soil	SW 6010C	12C1198_P
12C1198-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 6010C	12C1198_P
CVC1446-13	SB-1 0-2'	Total	Soil	SW 6010C	12C1198_P
CVC1446-16	DUP-7	Total	Soil	SW 6010C	12C1198_P
CVC1446-17	SB-4 0-2'	Total	Soil	SW 6010C	12C1198_P

### Prep Batch: 12C1099\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1099-BLK1	Method Blank	Total	Water - NonPotable	SW 3010A	
12C1099-BS1	Lab Control Sample	Total	Water - NonPotable	SW 3010A	
12C1099-DUP1	Duplicate	Total	Water - NonPotable	SW 3010A	
12C1099-MS1	Matrix Spike	Total	Water - NonPotable	SW 3010A	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Metals-ICP (Continued)

### Prep Batch: 12C1099\_P (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1099-MS2	Matrix Spike	Total	Water - NonPotable	SW 3010A	
12C1099-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SW 3010A	
CVC1446-09	Field Blank	Total	Water	SW 3010A	
CVC1446-15	SB-1	Total	Ground Water	SW 3010A	
CVC1446-19	SB-4	Total	Ground Water	SW 3010A	
CVC1446-20	DUP-5	Total	Ground Water	SW 3010A	

### Prep Batch: 12C1198\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1198-BLK1	Method Blank	Total	Solid/Soil	SW 3050B	
12C1198-BS1	Lab Control Sample	Total	Solid/Soil	SW 3050B	
12C1198-DUP1	DUP-7	Total	Solid/Soil	SW 3050B	
12C1198-MS1	Matrix Spike	Total	Solid/Soil	SW 3050B	
12C1198-MS2	SB-1 0-2'	Total	Solid/Soil	SW 3050B	
12C1198-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 3050B	
CVC1446-13	SB-1 0-2'	Total	Soil	SW 3050B	
CVC1446-16	DUP-7	Total	Soil	SW 3050B	
CVC1446-17	SB-4 0-2'	Total	Soil	SW 3050B	

## WetChem

### Analysis Batch: 12C1029

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1029-BLK1	Method Blank	Total	Water - NonPotable	SM 4500 NO3	12C1029_P
12C1029-BS1	Lab Control Sample	Total	Water - NonPotable	SM 4500 NO3	12C1029_P
12C1029-MS1	Matrix Spike	Total	Water - NonPotable	SM 4500 NO3	12C1029_P
12C1029-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	SM 4500 NO3	12C1029_P
CVC1446-09	Field Blank	Total	Water	SM 4500 NO3	12C1029_P
CVC1446-15	SB-1	Total	Ground Water	SM 4500 NO3	12C1029_P
CVC1446-19	SB-4	Total	Ground Water	SM 4500 NO3	12C1029_P
CVC1446-20	DUP-5	Total	Ground Water	SM 4500 NO3	12C1029_P

### Analysis Batch: 12C1057

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1057-DUP1	Duplicate	Total	Solid/Soil	SM 2540 G	12C1057_P
12C1057-DUP2	Duplicate	Total	Solid/Soil	SM 2540 G	12C1057_P
CVC1446-02	DUP-6	Total	Soil	SM 2540 G	12C1057_P
CVC1446-03	SB-2 0-2'	Total	Soil	SM 2540 G	12C1057_P
CVC1446-04	SB-2 2-4'	Total	Soil	SM 2540 G	12C1057_P
CVC1446-06	DUP-1	Total	Soil	SM 2540 G	12C1057_P
CVC1446-11	SB-3 0-2'	Total	Soil	SM 2540 G	12C1057_P
CVC1446-13	SB-1 0-2'	Total	Soil	SM 2540 G	12C1057_P
CVC1446-16	DUP-7	Total	Soil	SM 2540 G	12C1057_P
CVC1446-17	SB-4 0-2'	Total	Soil	SM 2540 G	12C1057_P

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## **WetChem (Continued)**

### **Analysis Batch: 12C1057 (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-18	SB-4 12-14'	Total	Soil	SM 2540 G	12C1057_P

### **Analysis Batch: 12C1058**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1058-DUP1	SB-1 14-16'	Total	Solid/Soil	SM 2540 G	12C1058_P
CVC1446-01	DUP-4	Total	Soil	SM 2540 G	12C1058_P
CVC1446-14	SB-1 14-16'	Total	Soil	SM 2540 G	12C1058_P

### **Analysis Batch: 12C1173**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1173-BLK1	Method Blank	Total	Solid/Soil	EPA 350.1	12C1173_P
12C1173-BS1	Lab Control Sample	Total	Solid/Soil	EPA 350.1	12C1173_P
12C1173-MS1	Matrix Spike	Total	Solid/Soil	EPA 350.1	12C1173_P
12C1173-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	EPA 350.1	12C1173_P
CVC1446-13	SB-1 0-2'	Total	Soil	EPA 350.1	12C1173_P
CVC1446-16	DUP-7	Total	Soil	EPA 350.1	12C1173_P
CVC1446-17	SB-4 0-2'	Total	Soil	EPA 350.1	12C1173_P

### **Analysis Batch: 12C1176**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1176-BLK1	Method Blank	Total	Solid/Soil	SW 9210A	12C1176_P
12C1176-BS1	Lab Control Sample	Total	Solid/Soil	SW 9210A	12C1176_P
12C1176-MS1	Matrix Spike	Total	Solid/Soil	SW 9210A	12C1176_P
12C1176-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	SW 9210A	12C1176_P
CVC1446-13	SB-1 0-2'	Total	Soil	SW 9210A	12C1176_P
CVC1446-16	DUP-7	Total	Soil	SW 9210A	12C1176_P
CVC1446-17	SB-4 0-2'	Total	Soil	SW 9210A	12C1176_P

### **Analysis Batch: 12C1189**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1189-BLK1	Method Blank	Total	Water - NonPotable	EPA 350.1	12C1189_P
12C1189-BS1	Lab Control Sample	Total	Water - NonPotable	EPA 350.1	12C1189_P
12C1189-MS1	Matrix Spike	Total	Water - NonPotable	EPA 350.1	12C1189_P
12C1189-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	EPA 350.1	12C1189_P
CVC1446-09	Field Blank	Total	Water	EPA 350.1	12C1189_P
CVC1446-15	SB-1	Total	Ground Water	EPA 350.1	12C1189_P
CVC1446-19	SB-4	Total	Ground Water	EPA 350.1	12C1189_P
CVC1446-20	DUP-5	Total	Ground Water	EPA 350.1	12C1189_P

### **Prep Batch: 12C1029\_P**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1029-BLK1	Method Blank	Total	Water - NonPotable	NO PREP - WET CHEM	
12C1029-BS1	Lab Control Sample	Total	Water - NonPotable	NO PREP - WET CHEM	
12C1029-MS1	Matrix Spike	Total	Water - NonPotable	NO PREP - WET CHEM	
12C1029-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	NO PREP - WET CHEM	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## **WetChem (Continued)**

### **Prep Batch: 12C1029\_P (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-09	Field Blank	Total	Water	NO PREP - WET CHEM	5
CVC1446-15	SB-1	Total	Ground Water	NO PREP - WET CHEM	6
CVC1446-19	SB-4	Total	Ground Water	NO PREP - WET CHEM	7
CVC1446-20	DUP-5	Total	Ground Water	NO PREP - WET CHEM	8

### **Prep Batch: 12C1057\_P**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1057-DUP1	Duplicate	Total	Solid/Soil	Solids - Solid/Soil	9
12C1057-DUP2	Duplicate	Total	Solid/Soil	Solids - Solid/Soil	10
CVC1446-02	DUP-6	Total	Soil	Solids - Solid/Soil	11
CVC1446-03	SB-2 0-2'	Total	Soil	Solids - Solid/Soil	12
CVC1446-04	SB-2 2-4'	Total	Soil	Solids - Solid/Soil	13
CVC1446-06	DUP-1	Total	Soil	Solids - Solid/Soil	
CVC1446-11	SB-3 0-2'	Total	Soil	Solids - Solid/Soil	
CVC1446-13	SB-1 0-2'	Total	Soil	Solids - Solid/Soil	
CVC1446-16	DUP-7	Total	Soil	Solids - Solid/Soil	
CVC1446-17	SB-4 0-2'	Total	Soil	Solids - Solid/Soil	
CVC1446-18	SB-4 12-14'	Total	Soil	Solids - Solid/Soil	

### **Prep Batch: 12C1058\_P**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1058-DUP1	SB-1 14-16'	Total	Solid/Soil	Solids - Solid/Soil	
CVC1446-01	DUP-4	Total	Soil	Solids - Solid/Soil	
CVC1446-14	SB-1 14-16'	Total	Soil	Solids - Solid/Soil	

### **Prep Batch: 12C1173\_P**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1173-BLK1	Method Blank	Total	Solid/Soil	NO PREP - WET CHEM	
12C1173-BS1	Lab Control Sample	Total	Solid/Soil	NO PREP - WET CHEM	
12C1173-MS1	Matrix Spike	Total	Solid/Soil	NO PREP - WET CHEM	
12C1173-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	NO PREP - WET CHEM	
CVC1446-13	SB-1 0-2'	Total	Soil	NO PREP - WET CHEM	
CVC1446-16	DUP-7	Total	Soil	NO PREP - WET CHEM	

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## **WetChem (Continued)**

### **Prep Batch: 12C1173\_P (Continued)**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-17	SB-4 0-2'	Total	Soil	NO PREP - WET CHEM	

### **Prep Batch: 12C1176\_P**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1176-BLK1	Method Blank	Total	Solid/Soil	NO PREP - WET CHEM	
12C1176-BS1	Lab Control Sample	Total	Solid/Soil	NO PREP - WET CHEM	
12C1176-MS1	Matrix Spike	Total	Solid/Soil	NO PREP - WET CHEM	
12C1176-MSD1	Matrix Spike Duplicate	Total	Solid/Soil	NO PREP - WET CHEM	
CVC1446-13	SB-1 0-2'	Total	Soil	NO PREP - WET CHEM	
CVC1446-16	DUP-7	Total	Soil	NO PREP - WET CHEM	
CVC1446-17	SB-4 0-2'	Total	Soil	NO PREP - WET CHEM	

### **Prep Batch: 12C1189\_P**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
12C1189-BLK1	Method Blank	Total	Water - NonPotable	NO PREP - WET CHEM	
12C1189-BS1	Lab Control Sample	Total	Water - NonPotable	NO PREP - WET CHEM	
12C1189-MS1	Matrix Spike	Total	Water - NonPotable	NO PREP - WET CHEM	
12C1189-MSD1	Matrix Spike Duplicate	Total	Water - NonPotable	NO PREP - WET CHEM	
CVC1446-09	Field Blank	Total	Water	NO PREP - WET CHEM	
CVC1446-15	SB-1	Total	Ground Water	NO PREP - WET CHEM	
CVC1446-19	SB-4	Total	Ground Water	NO PREP - WET CHEM	
CVC1446-20	DUP-5	Total	Ground Water	NO PREP - WET CHEM	

## **TCHI**

### **Analysis Batch: 144594**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
144745-61	Method Blank	Total	Water	8151A D ug/L	144594_P
144745-62	Lab Control Sample	Total	Water	8151A D ug/L	144594_P
144745-63	Lab Control Sample Dup	Total	Water	8151A D ug/L	144594_P
CVC1446-09	Field Blank	Total	Water	8151A D ug/L	144594_P
CVC1446-15	SB-1	Total	Ground Water	8151A D ug/L	144594_P
CVC1446-19	SB-4	Total	Ground Water	8151A D ug/L	144594_P
CVC1446-20	DUP-5	Total	Ground Water	8151A D ug/L	144594_P

### **Analysis Batch: 144778**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-01	DUP-4	Total	Soil	Moisture %	144778_P
CVC1446-13	SB-1 0-2'	Total	Soil	Moisture %	144778_P
CVC1446-17	SB-4 0-2'	Total	Soil	Moisture %	144778_P

# QC Association Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## TCHI (Continued)

### Analysis Batch: 145135

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
145058-77	Method Blank	Total	Soil	8151A D Dry mg/Kg	145135_P
145058-77	Method Blank	Total	Soil	8151A D Dry ug/Kg	145135_P
145058-78	Lab Control Sample	Total	Soil	8151A D Dry mg/Kg	145135_P
145058-78	Lab Control Sample	Total	Soil	8151A D Dry ug/Kg	145135_P
CVC1446-01	DUP-4	Total	Soil	8151A D Dry mg/Kg	145135_P
CVC1446-01	DUP-4	Total	Soil	8151A D Dry ug/Kg	145135_P
CVC1446-13	SB-1 0-2'	Total	Soil	8151A D Dry mg/Kg	145135_P
CVC1446-13	SB-1 0-2'	Total	Soil	8151A D Dry ug/Kg	145135_P
CVC1446-17	SB-4 0-2'	Total	Soil	8151A D Dry mg/Kg	145135_P
CVC1446-17	SB-4 0-2'	Total	Soil	8151A D Dry ug/Kg	145135_P

### Prep Batch: 144594\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
144745-61	Method Blank	Total	Water	8151A	
144745-62	Lab Control Sample	Total	Water	8151A	
144745-63	Lab Control Sample Dup	Total	Water	8151A	
CVC1446-09	Field Blank	Total	Water	8151A	
CVC1446-15	SB-1	Total	Ground Water	8151A	
CVC1446-19	SB-4	Total	Ground Water	8151A	
CVC1446-20	DUP-5	Total	Ground Water	8151A	

### Prep Batch: 144778\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
CVC1446-01	DUP-4	Total	Soil	NA	
CVC1446-13	SB-1 0-2'	Total	Soil	NA	
CVC1446-17	SB-4 0-2'	Total	Soil	NA	

### Prep Batch: 145135\_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
145058-77	Method Blank	Total	Soil	8151A	
145058-78	Lab Control Sample	Total	Soil	8151A	
CVC1446-01	DUP-4	Total	Soil	8151A	
CVC1446-13	SB-1 0-2'	Total	Soil	8151A	
CVC1446-17	SB-4 0-2'	Total	Soil	8151A	

# Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: DUP-4

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-01

Matrix: Soil  
Percent Solids: 83.9

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GC		0.970	25.765 g	10 mL	12C1084_P	03/26/12 09:25	AM	TAL CF
Total	Analysis	SW 8081A		1.00			V000531	03/27/12 12:23	DLK	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1058	03/23/12 16:24	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1058_P	03/23/12 16:24	SAS	TAL CF
Total	Prep	8151A					145135_P	04/02/12 20:35		TAL CHI
Total	Analysis	8151A D Dry mg/Kg		10			145135	04/04/12 07:32	PMF	TAL CHI
Total	Analysis	8151A D Dry ug/Kg		10			145135	04/04/12 07:32	PMF	TAL CHI
Total	Analysis	Moisture %		1			144778	03/29/12 13:00	CMV	TAL CHI
Total	Prep	NA					144778_P	03/29/12 13:00		TAL CHI

## Client Sample ID: DUP-6

Date Collected: 03/21/12 00:00  
Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-02

Matrix: Soil  
Percent Solids: 74.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.960	5.208 g	5 mL	12C1178_P	03/27/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100			12C1178	03/27/12 11:32	ZTB	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

## Client Sample ID: SB-2 0-2'

Date Collected: 03/21/12 13:30  
Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-03

Matrix: Soil  
Percent Solids: 85.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GCMS		0.984	25.406 g	1 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total	Analysis	SW 8270D		1.00			V000529	03/28/12 00:12	DMD	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

## Client Sample ID: SB-2 2-4'

Date Collected: 03/21/12 13:35  
Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-04

Matrix: Soil  
Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.850	5.881 g	5 mL	12C1178_P	03/27/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B		100			12C1178	03/27/12 12:02	ZTB	TAL CF
Total	Prep	SW 3546 GC		1.19	25.141 g	1.5 mL	12C1086_P	03/26/12 09:28	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000538	03/28/12 14:01	MAG	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

## Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Client Sample ID: SB-2

Date Collected: 03/21/12 13:37

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-05

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00			12C1213	03/26/12 13:45	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	5 mL	5 mL	12C1224_P	03/28/12 14:37	CMM	TAL CF
Total	Analysis	SW 9041A		1.00			12C1224	03/28/12 14:42	CMM	TAL CF
Total	Prep	SW 3510C_MS		1.72	580 mL	1 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total	Analysis	SW 8270D		1.00			V000550	03/29/12 17:49	DMD	TAL CF
Total	Prep	SW 3510C GC		1.56	640 mL	1 mL	12C1093_P	03/26/12 09:54	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000542	03/29/12 05:22	MAG	TAL CF

### Client Sample ID: DUP-1

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-06

Matrix: Soil

Percent Solids: 87.3

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GCMS		0.988	25.314 g	1 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total	Analysis	SW 8270D		1.00			V000529	03/28/12 00:42	DMD	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

### Client Sample ID: DUP-3

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-07

Matrix: Soil

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GC		1.17	25.737 g	1.5 mL	12C1086_P	03/26/12 09:28	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000538	03/28/12 14:42	MAG	TAL CF

### Client Sample ID: DUP-2

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-08

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00			12C1213	03/26/12 14:07	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	5 mL	5 mL	12C1224_P	03/28/12 14:37	CMM	TAL CF
Total	Analysis	SW 9041A		1.00			12C1224	03/28/12 14:42	CMM	TAL CF
Total	Prep	SW 3510C_MS		1.27	790 mL	1 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total	Analysis	SW 8270D		1.00			V000550	03/29/12 18:19	DMD	TAL CF
Total	Prep	SW 3510C GC		2.17	460 mL	1 mL	12C1093_P	03/26/12 09:54	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000542	03/29/12 06:05	MAG	TAL CF

# Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: Field Blank

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-09

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00			12C1213	03/26/12 11:53	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	5 mL	5 mL	12C1224_P	03/28/12 14:37	CMM	TAL CF
Total	Analysis	SW 9041A		1.00			12C1224	03/28/12 14:42	CMM	TAL CF
Total	Prep	SW 3510C_MS		1.15	870 mL	1 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total	Analysis	SW 8270D		1.00			V000550	03/29/12 18:49	DMD	TAL CF
Total	Prep	SW 3510C GC		1.12	890 mL	5 mL	12C1147_P	03/27/12 11:33	AM	TAL CF
Total	Analysis	SW 8081A		1.00			V000563	03/28/12 16:13	DLK	TAL CF
Total	Prep	SW 3510C GC		1.05	950 mL	1 mL	12C1093_P	03/26/12 09:54	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000542	03/29/12 06:47	MAG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		1.00	30 mL	30 mL	12C1141_P	03/27/12 10:40	SNS	TAL CF
Total	Analysis	SW 7470A		1.00			12C1141	03/27/12 13:27	SNS	TAL CF
Total	Prep	SW 3020A/EPA 200.9		1.00	50 mL	50 mL	12C1103_P	03/26/12 10:48	CJT	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	04/03/12 23:32	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/30/12 11:39	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/27/12 12:58	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/31/12 00:25	CJT	TAL CF
Total	Prep	SW 3010A		1.00	50 mL	50 mL	12C1099_P	03/26/12 10:31	CJT	TAL CF
Total	Analysis	SW 6010C		1.00			12C1099	03/26/12 20:40	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	10 mL	10 mL	12C1189_P	03/28/12 09:41	JCF	TAL CF
Total	Analysis	EPA 350.1		1.00			12C1189	03/28/12 15:07	JCF	TAL CF
Total	Analysis	SM 4500 NO3 E/00		1.00			12C1029	03/23/12 13:45	MDK	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	25 mL	25 mL	12C1029_P	03/23/12 13:45	MDK	TAL CF
Total	Prep	8151A					144594_P	03/28/12 08:50		TAL CHI
Total	Analysis	8151A D ug/L		1			144594	03/31/12 06:03	PMF	TAL CHI

## Client Sample ID: Trip Blank

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-10

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00			12C1213	03/26/12 12:15	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	5 mL	5 mL	12C1224_P	03/28/12 14:37	CMM	TAL CF
Total	Analysis	SW 9041A		1.00			12C1224	03/28/12 14:42	CMM	TAL CF

## Client Sample ID: SB-3 0-2'

Date Collected: 03/21/12 17:05

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-11

Matrix: Soil

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.800	6.249 g	5 mL	12C1178_P	03/27/12 00:00	ZTB	TAL CF

## Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

### Client Sample ID: SB-3 0-2'

Date Collected: 03/21/12 17:05

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-11

Matrix: Soil

Percent Solids: 88.2

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	SW 8260B		100			12C1178	03/27/12 12:33	ZTB	TAL CF
Total	Prep	SW 3546 GCMS		0.997	25.074 g	1 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total	Analysis	SW 8270D		1.00			V000529	03/28/12 01:11	DMD	TAL CF
Total	Prep	SW 3546 GC		1.20	25.103 g	1.5 mL	12C1086_P	03/26/12 09:28	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000538	03/28/12 22:13	MAG	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

### Client Sample ID: SB-3

Date Collected: 03/21/12 17:10

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-12

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B		1.00			12C1213	03/26/12 14:29	SJN	TAL CF
Total	Prep	Default Prep VOC		1.00	5 mL	5 mL	12C1224_P	03/28/12 14:37	CMM	TAL CF
Total	Analysis	SW 9041A		1.00			12C1224	03/28/12 14:42	CMM	TAL CF
Total	Prep	SW 3510C_MS		1.39	720 mL	1 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total	Analysis	SW 8270D		1.00			V000550	03/29/12 19:19	DMD	TAL CF
Total	Prep	SW 3510C GC		1.37	730 mL	1 mL	12C1093_P	03/26/12 09:54	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000542	03/29/12 07:32	MAG	TAL CF

### Client Sample ID: SB-1 0-2'

Date Collected: 03/21/12 15:58

Date Received: 03/23/12 09:24

### Lab Sample ID: CVC1446-13

Matrix: Soil

Percent Solids: 81

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GCMS		5.91	25.36 g	6 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total	Analysis	SW 8270D		10.0			V000529	03/28/12 02:40	DMD	TAL CF
Total	Prep	SW 3546 GC		0.971	25.748 g	10 mL	12C1084_P	03/26/12 09:25	AM	TAL CF
Total	Analysis	SW 8081A		1.00			V000531	03/27/12 12:35	DLK	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep SW 7471B		0.972	0.617 mL	30 mL	12C1350_P	03/30/12 12:40	SNS	TAL CF
Total	Analysis	SW 7471B		1.00			12C1350	03/30/12 13:47	SNS	TAL CF
Total	Prep	SW 3050B GFAA		0.951	1.052 g	50 mL	12C1200_P	03/28/12 10:48	JDG	TAL CF
Total	Analysis	SW 7010		2.00			12C1200	03/29/12 10:17	MRH	TAL CF
Total	Prep	SW 3050B		0.928	1.078 g	50 mL	12C1198_P	03/28/12 10:35	JDG	TAL CF
Total	Analysis	SW 6010C		10.0			12C1198	03/29/12 15:49	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.97	0.517 g	51 mL	12C1173_P	03/27/12 17:03	MDK	TAL CF
Total	Analysis	EPA 350.1		1.00			12C1173	03/28/12 19:21	JMH	TAL CF
Total	Analysis	SW 9210A		1.00			12C1176	03/27/12 18:25	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM		0.972	2.057 g	10 mL	12C1176_P	03/27/12 18:25	JMH	TAL CF
Total	Analysis	SM 2540 G		1.00			12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

## Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-1 0-2'**

**Lab Sample ID: CVC1446-13**

Date Collected: 03/21/12 15:58  
Date Received: 03/23/12 09:24

Matrix: Soil  
Percent Solids: 81

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Prep	8151A						145135_P	04/02/12 20:35		TAL CHI
Total Analysis	8151A D Dry mg/Kg			10			145135	04/04/12 07:54	PMF	TAL CHI
Total Analysis	8151A D Dry ug/Kg			10			145135	04/04/12 07:54	PMF	TAL CHI
Total Analysis	Moisture %			1			144778	03/29/12 13:00	CMV	TAL CHI
Total Prep	NA						144778_P	03/29/12 13:00		TAL CHI

**Client Sample ID: SB-1 14-16'**

**Lab Sample ID: CVC1446-14**

Date Collected: 03/21/12 16:06  
Date Received: 03/23/12 09:24

Matrix: Soil  
Percent Solids: 69.8

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Prep	SW 5035			0.866	5.775 g	5 mL	12C1178_P	03/27/12 00:00	ZTB	TAL CF
Total Analysis	SW 8260B			100			12C1178	03/27/12 13:03	ZTB	TAL CF
Total Prep	SW 5035		RE1	0.866	5.775 g	5 mL	12C1252_P	03/28/12 00:00	ZTB	TAL CF
Total Analysis	SW 8260B		RE1	1000			12C1252	03/28/12 17:08	ZTB	TAL CF
Total Prep	SW 3546 GCMS			1.45	25.784 g	1.5 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total Analysis	SW 8270D			10.0			V000529	03/28/12 03:10	DMD	TAL CF
Total Prep	SW 3546 GCMS		RE1	1.45	25.784 g	1.5 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total Analysis	SW 8270D		RE1	100			V000532	03/28/12 15:11	DMD	TAL CF
Total Analysis	SW 8270D		RE1	1000			V000532	03/28/12 15:41	DMD	TAL CF
Total Prep	SW 3546 GC			1.92	15.66 g	1.5 mL	12C1086_P	03/26/12 09:28	AM	TAL CF
Total Analysis	OA-2 - 8015B			1.00			V000538	03/29/12 01:40	MAG	TAL CF
Total Analysis	SM 2540 G			1.00			12C1058	03/23/12 16:24	SAS	TAL CF
Total Prep	Solids - Solid/Soil			1.00	1 g	1 g	12C1058_P	03/23/12 16:24	SAS	TAL CF

**Client Sample ID: SB-1**

**Lab Sample ID: CVC1446-15**

Date Collected: 03/21/12 16:04  
Date Received: 03/23/12 09:24

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total Prep	SW 5030B			1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total Analysis	SW 8260B			5.00			12C1213	03/26/12 15:14	SJN	TAL CF
Total Prep	Default Prep VOC			1.00	5 mL	5 mL	12C1108_P	03/26/12 11:50	FMK	TAL CF
Total Analysis	SW 9041A			1.00			12C1108	03/26/12 11:54	FMK	TAL CF
Total Prep	SW 5030B		RE1	1.00	5 mL	5 mL	12C1241_P	03/28/12 00:00	SJN	TAL CF
Total Analysis	SW 8260B		RE1	100			12C1241	03/28/12 11:08	SJN	TAL CF
Total Prep	SW 3510C_MS			8.43	830 mL	7 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total Analysis	SW 8270D			10.0			V000550	03/29/12 20:18	DMD	TAL CF
Total Analysis	SW 8270D			100			V000550	03/29/12 20:48	DMD	TAL CF
Total Prep	SW 3510C_MS		RE1	8.43	830 mL	7 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total Analysis	SW 8270D		RE1	1000			V000551	03/30/12 09:48	DMD	TAL CF
Total Prep	SW 3510C GC			1.28	780 mL	5 mL	12C1147_P	03/27/12 11:33	AM	TAL CF
Total Analysis	SW 8081A			1.00			V000563	03/28/12 16:25	DLK	TAL CF
Total Prep	SW 3510C GC			6.17	810 mL	5 mL	12C1093_P	03/26/12 09:54	AM	TAL CF

# Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: SB-1

Date Collected: 03/21/12 16:04

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-15

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	OA-2 - 8015B		1.00			V000542	03/29/12 14:33	MAG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		1.00	30 mL	30 mL	12C1141_P	03/27/12 10:40	SNS	TAL CF
Total	Analysis	SW 7470A		1.00			12C1141	03/27/12 13:29	SNS	TAL CF
Total	Prep	SW 3020A/EPA 200.9		1.00	50 mL	50 mL	12C1103_P	03/26/12 10:48	CJT	TAL CF
Total	Analysis	SW 7010		5.00			12C1103	04/04/12 09:02	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/30/12 11:29	MRH	TAL CF
Total	Analysis	SW 7010		2.00			12C1103	03/27/12 13:06	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/31/12 00:29	CJT	TAL CF
Total	Prep	SW 3010A		1.00	50 mL	50 mL	12C1099_P	03/26/12 10:31	CJT	TAL CF
Total	Analysis	SW 6010C		3.00			12C1099	03/26/12 22:02	SNS	TAL CF
Total	Analysis	SW 6010C		3.00			12C1099	03/28/12 13:33	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	10 mL	10 mL	12C1189_P	03/28/12 09:41	JCF	TAL CF
Total	Analysis	EPA 350.1		1.00			12C1189	03/28/12 15:08	JCF	TAL CF
Total	Analysis	SM 4500 NO3 E/00		1.00			12C1029	03/23/12 13:38	MDK	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	25 mL	25 mL	12C1029_P	03/23/12 13:38	MDK	TAL CF
Total	Prep	8151A					144594_P	03/28/12 08:50		TAL CHI
Total	Analysis	8151A D ug/L		10			144594	03/31/12 06:25	PMF	TAL CHI

## Client Sample ID: DUP-7

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-16

Matrix: Soil

Percent Solids: 81.6

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 245.2/SW 7470A Prep		0.957	0.627 mL	30 mL	12C1350_P	03/30/12 12:40	SNS	TAL CF
Total	Analysis	SW 7471B		1.00			12C1350	03/30/12 13:49	SNS	TAL CF
Total	Prep	SW 3050B GFAA		0.972	1.029 g	50 mL	12C1200_P	03/28/12 10:48	JDG	TAL CF
Total	Analysis	SW 7010		2.00			12C1200	03/29/12 10:17	MRH	TAL CF
Total	Prep	SW 3050B		0.963	1.038 g	50 mL	12C1198_P	03/28/12 10:35	JDG	TAL CF
Total	Analysis	SW 6010C		3.00			12C1198	03/29/12 15:56	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.93	0.509 g	49 mL	12C1173_P	03/27/12 17:03	MDK	TAL CF
Total	Analysis	EPA 350.1		1.00			12C1173	03/28/12 19:22	JMH	TAL CF
Total	Analysis	SW 9210A		1.00			12C1176	03/27/12 18:26	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM		0.990	2.021 g	10 mL	12C1176_P	03/27/12 18:26	JMH	TAL CF
Total	Analysis	SM 2540 G		1.00	1 g	1 g	12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00			12C1057_P	03/23/12 16:22	SAS	TAL CF

# Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: SB-4 0-2'**

**Lab Sample ID: CVC1446-17**

Date Collected: 03/21/12 14:45  
Date Received: 03/23/12 09:24

Matrix: Soil  
Percent Solids: 83

Prep Type	Batch	Batch	Dil	Initial	Final	Batch	Prepared			
	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total	Prep	SW 3546 GCMS		2.95	25.424 g	3 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total	Analysis	SW 8270D			10.0		V000529	03/28/12 03:40	DMD	TAL CF
Total	Prep	SW 3546 GC		0.986	25.349 g	10 mL	12C1084_P	03/26/12 09:25	AM	TAL CF
Total	Analysis	SW 8081A			1.00		V000531	03/27/12 12:47	DLK	TAL CF
Total	Prep	EPA 245.2/SW		0.960	0.625 mL	30 mL	12C1350_P	03/30/12 12:40	SNS	TAL CF
Total	Analysis	7470A Prep SW 7471B			1.00		12C1350	03/30/12 13:51	SNS	TAL CF
Total	Prep	SW 3050B GFAA		0.945	1.058 g	50 mL	12C1200_P	03/28/12 10:48	JDG	TAL CF
Total	Analysis	SW 7010			2.00		12C1200	03/29/12 10:17	MRH	TAL CF
Total	Prep	SW 3050B		0.927	1.079 g	50 mL	12C1198_P	03/28/12 10:35	JDG	TAL CF
Total	Analysis	SW 6010C			1.00		12C1198	03/28/12 17:48	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.94	0.525 g	51 mL	12C1173_P	03/27/12 17:03	MDK	TAL CF
Total	Analysis	EPA 350.1			1.00		12C1173	03/28/12 19:23	JMH	TAL CF
Total	Analysis	SW 9210A			1.00		12C1176	03/27/12 18:27	JMH	TAL CF
Total	Prep	NO PREP - WET CHEM		0.984	2.032 g	10 mL	12C1176_P	03/27/12 18:27	JMH	TAL CF
Total	Analysis	SM 2540 G			1.00		12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF
Total	Prep	8151A					145135_P	04/02/12 20:35		TAL CHI
Total	Analysis	8151A D Dry mg/Kg			10		145135	04/04/12 08:16	PMF	TAL CHI
Total	Analysis	8151A D Dry ug/Kg			10		145135	04/04/12 08:16	PMF	TAL CHI
Total	Analysis	Moisture %			1		144778	03/29/12 13:00	CMV	TAL CHI
Total	Prep	NA					144778_P	03/29/12 13:00		TAL CHI

**Client Sample ID: SB-4 12-14'**

**Lab Sample ID: CVC1446-18**

Date Collected: 03/21/12 14:55  
Date Received: 03/23/12 09:24

Matrix: Soil  
Percent Solids: 73.8

Prep Type	Batch	Batch	Dil	Initial	Final	Batch	Prepared			
	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total	Prep	SW 5035		0.914	10.938 g	10 mL	12C1252_P	03/28/12 00:00	ZTB	TAL CF
Total	Analysis	SW 8260B			50.0		12C1252	03/28/12 17:38	ZTB	TAL CF
Total	Prep	SW 3546 GCMS		0.983	25.421 g	1 mL	12C1035_P	03/23/12 13:07	EEE	TAL CF
Total	Analysis	SW 8270D			1.00		V000528	03/27/12 15:08	DMD	TAL CF
Total	Prep	SW 3546 GC		1.96	15.284 g	1.5 mL	12C1086_P	03/26/12 09:28	AM	TAL CF
Total	Analysis	OA-2 - 8015B			1.00		V000538	03/28/12 15:23	MAG	TAL CF
Total	Analysis	SM 2540 G			1.00		12C1057	03/23/12 16:22	SAS	TAL CF
Total	Prep	Solids - Solid/Soil		1.00	1 g	1 g	12C1057_P	03/23/12 16:22	SAS	TAL CF

**Client Sample ID: SB-4**

**Lab Sample ID: CVC1446-19**

Date Collected: 03/21/12 14:43  
Date Received: 03/23/12 09:24

Matrix: Ground Water

Prep Type	Batch	Batch	Dil	Initial	Final	Batch	Prepared			
	Type	Method	Run	Factor	Amount	Amount	Number	or Analyzed	Analyst	Lab
Total	Prep	SW 5030B		1.00	5 mL	5 mL	12C1213_P	03/26/12 00:00	SJN	TAL CF
Total	Analysis	SW 8260B			1.00		12C1213	03/26/12 14:52	SJN	TAL CF

# Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

## Client Sample ID: SB-4

Date Collected: 03/21/12 14:43

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-19

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	Default Prep VOC		1.00	5 mL	5 mL	12C1224_P	03/28/12 14:37	CMM	TAL CF
Total	Analysis	SW 9041A		1.00			12C1224	03/28/12 14:42	CMM	TAL CF
Total	Prep	SW 3510C_MS		1.01	990 mL	1 mL	12C1144_P	03/27/12 11:25	AM	TAL CF
Total	Analysis	SW 8270D		1.00			V000550	03/29/12 19:48	DMD	TAL CF
Total	Prep	SW 3510C GC		1.03	970 mL	5 mL	12C1147_P	03/27/12 11:33	AM	TAL CF
Total	Analysis	SW 8081A		1.00			V000563	03/28/12 16:38	DLK	TAL CF
Total	Prep	SW 3510C GC		1.04	960 mL	1 mL	12C1093_P	03/26/12 09:54	AM	TAL CF
Total	Analysis	OA-2 - 8015B		1.00			V000542	03/29/12 08:11	MAG	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		1.00	30 mL	30 mL	12C1141_P	03/27/12 10:40	SNS	TAL CF
Total	Analysis	SW 7470A		1.00			12C1141	03/27/12 13:31	SNS	TAL CF
Total	Prep	SW 3020A/EPA 200.9		1.00	50 mL	50 mL	12C1103_P	03/26/12 10:48	CJT	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	04/03/12 23:40	MRH	TAL CF
Total	Analysis	SW 7010		4.00			12C1103	03/30/12 12:16	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/27/12 13:10	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/31/12 00:32	CJT	TAL CF
Total	Prep	SW 3010A		1.00	50 mL	50 mL	12C1099_P	03/26/12 10:31	CJT	TAL CF
Total	Analysis	SW 6010C		3.00			12C1099	03/26/12 20:43	SNS	TAL CF
Total	Analysis	SW 6010C		1.00			12C1099	03/26/12 20:43	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	10 mL	10 mL	12C1189_P	03/28/12 09:41	JCF	TAL CF
Total	Analysis	EPA 350.1		1.00			12C1189	03/28/12 15:10	JCF	TAL CF
Total	Analysis	SM 4500 NO3 E/00		1.00			12C1029	03/23/12 13:41	MDK	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	25 mL	25 mL	12C1029_P	03/23/12 13:41	MDK	TAL CF
Total	Prep	8151A					144594_P	03/28/12 08:50		TAL CHI
Total	Analysis	8151A D ug/L		1			144594	03/31/12 06:47	PMF	TAL CHI

## Client Sample ID: DUP-5

Date Collected: 03/21/12 00:00

Date Received: 03/23/12 09:24

## Lab Sample ID: CVC1446-20

Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	SW 3510C GC		1.06	940 mL	5 mL	12C1147_P	03/27/12 11:33	AM	TAL CF
Total	Analysis	SW 8081A		1.00			V000563	03/28/12 16:50	DLK	TAL CF
Total	Prep	EPA 245.2/SW 7470A Prep		1.00	30 mL	30 mL	12C1141_P	03/27/12 10:40	SNS	TAL CF
Total	Analysis	SW 7470A		1.00			12C1141	03/27/12 13:33	SNS	TAL CF
Total	Prep	SW 3020A/EPA 200.9		1.00	50 mL	50 mL	12C1103_P	03/26/12 10:48	CJT	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	04/03/12 23:44	MRH	TAL CF
Total	Analysis	SW 7010		2.00			12C1103	03/30/12 12:12	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/27/12 13:14	MRH	TAL CF
Total	Analysis	SW 7010		1.00			12C1103	03/31/12 00:35	CJT	TAL CF
Total	Prep	SW 3010A		1.00	50 mL	50 mL	12C1099_P	03/26/12 10:31	CJT	TAL CF

# Lab Chronicle

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

**Client Sample ID: DUP-5**

**Lab Sample ID: CVC1446-20**

Date Collected: 03/21/12 00:00

Matrix: Ground Water

Date Received: 03/23/12 09:24

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Analysis	SW 6010C		1.00			12C1099	03/26/12 20:44	SNS	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	10 mL	10 mL	12C1189_P	03/28/12 09:41	JCF	TAL CF
Total	Analysis	EPA 350.1		1.00			12C1189	03/28/12 15:11	JCF	TAL CF
Total	Analysis	SM 4500 NO3 E/00		1.00			12C1029	03/23/12 13:43	MDK	TAL CF
Total	Prep	NO PREP - WET CHEM		1.00	25 mL	25 mL	12C1029_P	03/23/12 13:43	MDK	TAL CF
Total	Prep	8151A					144594_P	03/28/12 08:50		TAL CHI
Total	Analysis	8151A D ug/L		1			144594	03/31/12 07:10	PMF	TAL CHI

**Laboratory References:**

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708) 534-5200

## Definitions/Glossary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

### Qualifiers

#### GCMS Volatiles

Qualifier	Qualifier Description
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was outside control limits.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the control limits. Analyte not detected, data not impacted.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
CIN	The % RSD for this compound was above 15%. The average % RSD for all compounds in the calibration met the 15% criteria specified in EPA methods 8260B/8270C.
B	Analyte was detected in the associated Method Blank.
P	The sample, as received, was not preserved in accordance to the referenced analytical method.

#### GCMS Semivolatiles

Qualifier	Qualifier Description
M1	The MS and/or MSD were outside control limits.
Z6	Surrogate recovery was outside control limits.
R	Sample duplicate RPD exceeded the laboratory control limit.
RL1	Reporting limit raised due to sample matrix effects.

#### GC Semivolatiles

Qualifier	Qualifier Description
M1	The MS and/or MSD were outside control limits.
R	Sample duplicate RPD exceeded the laboratory control limit.
L1	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was outside control limits.
R2	LCS duplicate RPD exceeded the laboratory control limit.
ZX	Due to sample matrix effects, the surrogate recovery was outside the control limits.
MDL	Results calculated/entered to the method detection limit (MDL).
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
Q	Poor chromatographic match to standard.
R10	The RPD between the primary and confirmatory analysis exceeded 40%. Per method 8000C, the lower value was reported due to apparent chromatographic problems.

#### Metals-GFAA

Qualifier	Qualifier Description
R	Sample duplicate RPD exceeded the laboratory control limit.
M1	The MS and/or MSD were outside control limits.
pH>2	Sample received at pH>2. It was adjusted correctly prior to analysis.

#### Metals-ICP

Qualifier	Qualifier Description
M1	The MS and/or MSD were outside control limits.
IE	Elevated reporting limit due to interelement interference.
pH>2	Sample received at pH>2. It was adjusted correctly prior to analysis.

#### WetChem

Qualifier	Qualifier Description
M1	The MS and/or MSD were outside control limits.
pH>2	Sample received at pH>2. It was adjusted correctly prior to analysis.

#### TCHI

Qualifier	Qualifier Description
*	RPD of the LCS and LCSD exceeds the control limits

### Glossary

**Abbreviation** These commonly used abbreviations may or may not be present in this report.

✉	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid

## Definitions/Glossary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <

TestAmerica Job ID: CVC1446

Project/Site: [none]

### Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

## Certification Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Cedar Falls	AIHA - LAP	IHLAP		101044
TestAmerica Cedar Falls	Illinois	NELAC	5	200024
TestAmerica Cedar Falls	Iowa	State Program	7	7
TestAmerica Cedar Falls	Kansas	NELAC	7	E-10341
TestAmerica Cedar Falls	Minnesota	NELAC	5	019-999-319
TestAmerica Cedar Falls	North Dakota	State Program	8	R-186
TestAmerica Cedar Falls	Oregon	NELAC	10	IA100001
TestAmerica Cedar Falls	Wisconsin	State Program	5	999917270
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Georgia	State Program	4	N/A
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	Kentucky (UST)	State Program	4	66
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina DENR	State Program	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	Federal		P330-12-00038
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

## Method Summary

Client: HOWARD R. GREEN CO. - CEDAR RAPIDS <  
Project/Site: [none]

TestAmerica Job ID: CVC1446

Method	Method Description	Protocol	Laboratory
SW 8260B	Volatile Organic Compounds	TAL CF	
SW 9041A	VOC Preservation Check	TAL CF	
SW 8270D	PAH Compounds by SIM GCMS	TAL CF	
OA-2 - 8015B	UST ANALYSIS PARAMETERS	TAL CF	
SW 8081A	Organochlorine Pesticides by EPA Method 8081A	TAL CF	
SW 7470A	Total Metals by SW 846 Series Methods	TAL CF	
SW 7471B	Total Metals by SW 846 Series Methods	TAL CF	
SW 7010	Total Metals by SW 846 Series Methods	TAL CF	
SW 6010C	Total Metals by SW 846 Series Methods	TAL CF	
EPA 350.1	General Chemistry Parameters	TAL CF	
SM 2540 G	General Chemistry Parameters	TAL CF	
SM 4500 NO3 E/00	General Chemistry Parameters	TAL CF	
SW 9210A	General Chemistry Parameters	TAL CF	
8151A D Dry mg/Kg	Herbicides (GC)	TAL CHI	
8151A D Dry ug/Kg	Herbicides (GC)	TAL CHI	
8151A D ug/L	Herbicides (GC)	TAL CHI	
Moisture %	Percent Moisture	TAL CHI	

### Protocol References:

### Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL 800-750-2401

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708) 534-5200

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division  
704 Enterprise Drive  
Cedar Falls, IA 50613  
Phone 319-277-2401 or 800-750-2401  
Fax 319-277-2425

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: Heather Tisch Client #: \_\_\_\_\_  
 Address: 8770 Farha-T Lane SW  
 City/State/Zip Code: Cedar Rapids, IA 52404  
 Project Manager: Mike Goebel  
 Email Address: mgobalen@hgreen.com  
 Telephone Number: 651-659-1759 Fax: \_\_\_\_\_  
 Sampler Name: (Print Name) Alyson Fisher  
 Sampler Signature: Alyson Fisher

SAMPLE ID	Date Sampled	Time Sampled	Field Filtered	SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specif. Other	HNO <sub>3</sub>	HCl	NaOH	H <sub>2</sub> SO <sub>4</sub>	Methanol	None	Other (Specify) <u>50g/L</u>	Analyze For:			REMARKS	
												None	Level 2 (Batch QC)	Level 3	Level 4	
DUP-4	3/21/11	—	G	S	S	—	2	—	—	—	—	X	X	X	X	
DUP-6			G	S	S	—	—	—	—	—	—	X				
S32 0-2'	1330	6	S	S	S	—	—	—	—	—	—	X				
S32 2-4'	1335	6	S	S	S	—	—	—	—	—	—	X				
S32	1337	6	GW	3	3	2	2	—	X	X	X	X				
DUP-1	—	G	S	S	S	—	—	—	—	—	—	X				
DUP-3	—	G	S	S	S	—	—	—	—	—	—	X				
DUP-2	—	G	GW	3	3	2	2	—	X	X	X	X				
Field Blank	—	G	GW	1	3	1	5	—	X	X	X	X	X	X	X	
trip Blank	—	—	GW	3	3	—	—	—	X	X	X	X	X	X	X	

Special Instructions:

Relinquished By: <u>Alyson Fisher</u>	Date: <u>3/22/12</u>	Time: <u>11:00</u>	Received By: <u>Angie Nulling</u>	Date: <u>3/23/12</u>	Time: <u>9:24</u>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

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# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

Cedar Falls Division  
704 Enterprise Drive  
Cedar Falls, IA 50613  
Phone 319-277-2401 or 800-756-2401  
Fax 319-277-2425

To assist us in using the proper analytical methods,  
is this work being conducted for regulatory purposes?  
Compliance Monitoring

Client Name: HR Green Inc. Client #: \_\_\_\_\_

Address: 8770 Cabinet Ln SW

City/State/Zip Code: Cedar Rapids, IA 52404

Project Manager: Mike Lealen

Email Address: mylealen@hrgreen.com

Telephone Number: 651-659-7754 Fax: \_\_\_\_\_

Sampler Name: (Print Name) Harm Fisher

Sampler Signature: Harm Fisher

TAT Standard	Rush (surcharges may apply)	Client Name: <u>HR Green Inc.</u> Client #: _____
Date Needed:	<u>11/5/11</u>	Address: <u>8770 Cabinet Ln SW</u>
Fax Results:	<input checked="" type="checkbox"/> Y <input type="checkbox"/> N	City/State/Zip Code: <u>Cedar Rapids, IA 52404</u>
Email Results:	<input type="checkbox"/>	Project Manager: <u>Mike Lealen</u>
SAMPLE ID	SB3 0-2'	Email Address: <u>mylealen@hrgreen.com</u>
Matrix	Preservation & # of Containers	Telephone Number: <u>651-659-7754</u> Fax: _____

TAT	Standard	Rush (surcharges may apply)	Date Needed:	Date Sampled	Time Sampled	Field Filtered	G = Grab, C = Composite	Other (Specify) <u>SO257</u>	Analyze For:										REMARKS	QC Deliverables
									SL - Sludge DW	GW - Groundwater	S - Soil/Solid	WW - Wastewater	Spec1	Spec2	Spec3	Spec4	Spec5	Spec6	Spec7	
SB3	0-2'		<u>3/21/12</u>	<u>1705</u>	<u>G</u>	<u>5</u>	<u>None</u>		<u>1</u>	<u>3</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB3				<u>1710</u>	<u>b</u>	<u>6</u>	<u>6W</u>	<u>3</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB1	0-2'		<u>1558</u>	<u>G</u>	<u>5</u>	<u>5</u>	<u>None</u>		<u>4</u>	<u>1</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB1	14-16		<u>1606</u>	<u>G</u>	<u>5</u>	<u>5</u>	<u>None</u>		<u>1</u>	<u>3</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB1			<u>1604</u>	<u>G</u>	<u>6W</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
DUP-7			<u>-</u>	<u>6</u>	<u>5</u>	<u>5</u>	<u>None</u>		<u>2</u>	<u>1</u>	<u>1</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB4	0-2'		<u>1445</u>	<u>G</u>	<u>5</u>	<u>5</u>	<u>None</u>		<u>4</u>	<u>1</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB4	12-14'		<u>1455</u>	<u>G</u>	<u>5</u>	<u>5</u>	<u>None</u>		<u>1</u>	<u>3</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
SB4			<u>1443</u>	<u>G</u>	<u>6W</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>5</u>	<u>2</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>
DUP-5			<u>V</u>	<u>-</u>	<u>6</u>	<u>6W</u>	<u>1</u>	<u>3</u>	<u>1</u>	<u>3</u>	<u>2</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>X</u>	<u>None</u>

Special Instructions:

SB1 - high vocs / little content - same for product

Relinquished By: <u>John Zink</u>	Date: <u>3/12/12</u>	Time: <u>11:00</u>	Received By: <u>Jeffrey Munkeling</u>	Date: <u>3/23/12</u>	Time: <u>9:24</u>
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TAL-0033 (0708)

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## Sample Receipt and Temperature Log Form

Client: HR GreenProject: Council BluffCity: ClDate: 3-23-12 Receiver's Initials: CH Time (Delivered): 9:24**Temperature Record:**

**Cooler ID# (If Applicable)**  
S266

4.1° C / On Ice

 Temp Blank Temperature out of compliance**Thermometer:**

- IR - 111531565 'D'  
 IR - 111531506 'E'  
 IR - 61854108 'Front'  
 101681126

**Courier:**

- UPS       TA Courier  
 FedEx       TA Field Services  
 FedEx Ground       Client  
 US Postal Service       Other  
 Spee-Dee

Custody seals present?

 Yes

Custody seals intact?

 Yes     No Non-Conformance report started**Exceptions Noted**

- Sample(s) not received in a cooler.  
 Samples(s) received same day of sampling.  
 Evidence of a chilling process  
 No Temp. Blank. Inside temperature of cooler recorded.  
 Temperature not taken:

\*Refer to SOP CF-SS-01 for Temperature Criteria

## Sample Receipt and Temperature Log Form

Client: HR GreenProject: Council BluffCity: CRDate: 3/23/12 Receiver's Initials: CH Time (Delivered): 9:24**Temperature Record:**

**Cooler ID# (If Applicable)**  
BZ-6

5.5 °C / On Ice

 Temp Blank Temperature out of compliance**Thermometer:**

- IR - 111531565 'D'  
 IR - 111531506 'E'  
 IR - 61854108 'Front'  
 101681126

**Courier:**

- |  |  |
|--|--|
| <input type="checkbox"/> UPS               | <input type="checkbox"/> TA Courier        |
| <input checked="" type="checkbox"/> FedEx  | <input type="checkbox"/> TA Field Services |
| <input type="checkbox"/> FedEx Ground      | <input type="checkbox"/> Client            |
| <input type="checkbox"/> US Postal Service | <input type="checkbox"/> Other             |
| <input type="checkbox"/> Spee-Dee          |  |

Custody seals present?

 Yes

Custody seals intact?

 Yes    No Non-Conformance report startedAmberly**Exceptions Noted**

- |                          |  |
|--------------------------|--|
| <input type="checkbox"/> | Sample(s) not received in a cooler.                    |
| <input type="checkbox"/> | Samples(s) received same day of sampling.              |
| <input type="checkbox"/> | Evidence of a chilling process                         |
| <input type="checkbox"/> | No Temp. Blank. Inside temperature of cooler recorded. |
| <input type="checkbox"/> | Temperature not taken:                                 |

\*Refer to SOP CF-SS-01 for Temperature Criteria

## Sample Receipt and Temperature Log Form

Client: HR GreenProject: Council BluffCity: CRDate: 3-23-12 Receiver's Initials: CH Time (Delivered): 9:24**Temperature Record:**

**Cooler ID# (If Applicable)**  
TA 71

29 °C / On Ice

 Temp Blank Temperature out of compliance**Thermometer:**

- IR - 111531565 'D'  
 IR - 111531506 'E'  
 IR - 61854108 'Front'  
 101681126

**Courier:**

- UPS       TA Courier  
 FedEx       TA Field Services  
 FedEx Ground       Client  
 US Postal Service       Other  
 Spee-Dee

Custody seals present?

 Yes

Custody seals intact?

 Yes     No Non-Conformance report started**Exceptions Noted**

- Sample(s) not received in a cooler.  
 Samples(s) received same day of sampling.  
 Evidence of a chilling process  
 No Temp. Blank. Inside temperature of cooler recorded.  
 Temperature not taken:

\*Refer to SOP CF-SS-01 for Temperature Criteria

**APPENDIX D**  
**BORINGS LOGS**

## **SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM**

Boring/Well Number: SB1		Facility: Former Grain Elevator			Facility Street Address: 1000 S. 7th Street					
Boring Depth (ft) X Diameter (in): 15 X 3					Drilling Method: Geoprobe					
Well contractor Name: M.E.S.A, Inc.					Logged By:					
Registration Number: 1555					Adam Fisher					
Ground Surface				Top of Casing						
Elevation (ASL): 986'				Elevation (ASL):						
Date: 03/21/12		Date: 03/21/12		UST Number: NA		LUST Number: NA				
Start Time: 1525		End Time: 1555		Soil Classification						
Depth (feet)	Well Construction Details		Recovery (feet)	Sample No.	Type	PID/FID Reading	USCS Class.			
0			4/5			GW	0-2': fill - gravel, sand, silt			
1							4.5*			
2							3.1	CL	2-4': silty clay	
3							2.4	MH	4-7': light brown clay loam - wet	
4							3.0	SP	7-8': grey wet sand - wet	
5							2.1	CH	8-15': dark grey silty clay - stronger odor with depth, sheen on soil	
6			5/5			GW				
7							3.0			
8		Temporary well screen					2.1			
9							0.9			
10							50.5			
11							324*			
12										
13										
14										
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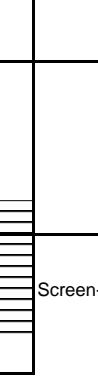
\* Soil sample taken for analysis

Site Sample taken for analysis						
Observations	Date:	03/21/2012				
Water Levels (ASL)	Level:	7'				
Static Water Level v	Time:	1550				

## SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well Number: SB2		Facility: Former Grain Elevator			Facility Street Address: 1000 S. 7th Street				
Boring Depth (ft) X Diameter (in): 20 X 3					Drilling Method: Geoprobe				
Well contractor Name: M.E.S.A, Inc.					Logged By: Adam Fisher				
Registration Number: 1555									
Ground Surface Elevation (ASL): 986'				Top of Casing Elevation (ASL):					
Date: 03/21/12	Date: 03/21/12				UST Number: NA	LUST Number: NA			
Start Time: 1236	End Time: 1320								
Depth (feet)	Well Construction Details		Recovery (feet)	Sample No.	Type	PID/FID Reading	USCS Class.	Soil Classification	
0			4/5			17.5*	GW	0-1': fill - well graded gravel	
1						20.5*	GM	1-1.5': fill - red brick, misc.	
2							CL	1.5-3': silty clay	
3							MH	3-8': moist, light brown clay loam	
4								14.7	
5			5/5			0	CL	8-10': black silty clay	
6						0	CH	10-14.5': grey fine sandy clay - wet	
7						0			
8						0			
9						0		CH	15.5-20': hard grey clay - wet
10			4/5			0			
11	Screen-point					0			
12						0			
13						0			
14						0			
15			2.5/5			0	CH		
16						0			
17						0			
18						-			
19									
20									
21									
22									
23									
24									
25									
26									
27									
28									
29									
30									
T.D. = 20'									
* Soil sample taken for analysis									
Observations	Date:	03/21/2012							
Water Levels (ASL)	Level:	10'							
Static Water Level v	Time:	1320							

## SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well Number: SB3		Facility: Former Grain Elevator			Facility Street Address: 1000 S. 7th Street						
Boring Depth (ft) X Diameter (in): 15 X 3					Drilling Method: Geoprobe						
Well contractor Name: M.E.S.A, Inc.					Logged By: Adam Fisher						
Registration Number: 1555											
Ground Surface Elevation (ASL): 986'				Top of Casing Elevation (ASL):							
Date: 03/21/12		Date: 03/21/12		UST Number: NA		LUST Number: NA					
Start Time: 1634		End Time: 1700									
Depth (feet)	Well Construction Details		Recovery (feet)	Sample No.	Type	PID/FID Reading	USCS Class.	Soil Classification			
0			 4/5 4.5/5 4/5			15.7**	GW	0-.5': well graded gravel			
1						8.5	SW	.5-2': dark brown sand			
2						6.5	CL	2-2.5': light brown clay			
3						9.3			2.5-9': light brown clay loam - wet		
4						8.5			MH		
5						7.4			CL	9-10': dark grey silty clay - slight odor	
6						4.4			CH	10-12': grey clay	
7						6.5	SP	12-13.5': fine grey sand - wet			
8											
9											
10											
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26											
27											
28											
29											
30											
T.D. = 15'											
* Soil sample taken for analysis											
Observations		Date:	03/21/2012								
Water Levels (ASL)		Level:	12'								
Static Water Level v		Time:	1655								

## SOIL BORING LOG AND MONITORING WELL CONSTRUCTION DIAGRAM

Boring/Well Number: SB4		Facility: Former Grain Elevator			Facility Street Address: 1000 S. 7th Street					
Boring Depth (ft) X Diameter (in): 15 X 3					Drilling Method: Geoprobe					
Well contractor Name: M.E.S.A, Inc.					Logged By:					
Registration Number: 1555					Adam Fisher					
Ground Surface Elevation (ASL): 986'				Top of Casing Elevation (ASL):						
Date: 03/21/12 Start Time: 1409		Date: 03/21/12 End Time: 1440		UST Number: NA		LUST Number: NA				
Depth (feet)	Well Construction Details		Recovery (feet)	Sample No.	Type	PID/FID Reading	USCS Class.	Soil Classification		
0			4/5			0*	GW	0-2': fill - gravel, sand, silt		
1						0	CH	2-3': brown clay		
2						0	MH	3-9': light brown clay loam - moist		
3						0	CL	9-10': black silty clay		
4						0*	CH	10-14.5': grey fine sandy clay, wet - slight odor		
5						0	SP	14.5-15': fine grey sand - wet		
6										
7										
8										
9		Screen-point								
10										
11										
12										
13										
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25										
26										
27										
28										
29										
30										
T.D. = 15'										
* Soil sample taken for analysis										
Observations		Date:	03/21/2012							
Water Levels (ASL)		Level:	10.5'							
Static Water Level v		Time:	1430							

**APPENDIX E**

**RISK CALCULATOR SUMMARY**

 **Cumulative Risk Results**  
Cumulative Risk Calculator

Calculator      Statewide Standards      Chemical Specific Info.      Related Links      Help      Print



For: Mike Goalen  
1000 S 7th St  
Council Bluffs IA  
Date: 5/10/2012

**Cancer Risk Output**

Chemical Name	CASRN	Resident Soil	Site Worker Soil
Arsenic, Inorganic	007440-38-2	0.1	0.02
Benzo[a]anthracene	000056-55-3	0.05	0.01
Benzo[a]pyrene	000050-32-8	0.48	0.13
Benzo[b]fluoranthene	000205-99-2	0.06	0.02
Benzo[k]fluoranthene	000207-08-9	0	0
Chrysene	000218-01-9	0	0
Dibenz[a,h]anthracene	000053-70-3	0.13	0.03
Indeno[1,2,3-cd]pyrene	000193-39-5	0.03	0.01
Lead and Compounds	007439-92-1	NQ	NQ
Naphthalene	000091-20-3	NQ	NQ
<b>TOTALS:</b>		<b>0.85</b>	<b>0.22</b>

Cummulative Cancer Risk Site Resident: 0.85 (All cancer risk values are x 10<sup>-4</sup>)  
Cummulative Cancer Risk Site Worker: 0.22

**Site Resident-Non Cancer Risk Output by target organ**

Chemical Name	CASRN	Media	Heart	Liver	Blood	Kidney	Skin	Endoc	Eye	Immu	Nerve	GenUr	Respi	Other	Devel	Gastro
Acenaphthylene	208-96-8			Soil						0						
Arsenic, Inorganic	007440-38-2			Soil	0.18		0.18		0.18							0.18
Barium	007440-39-3			Soil	0.02			0.02								
Benzo[a]anthracene	000056-55-3			Soil												
Benzo[a]pyrene	000050-32-8			Soil												0
Benzo[b]fluoranthene	000205-99-2			Soil												0
Benzo[g,h,i]perylene	191-24-2			Soil						0						
Benzo[k]fluoranthene	000207-08-9			Soil						0						0
Cadmium (soil)	007440-43-9			Soil						0.02						
Chromium VI (soil)	018540-29-9			Soil												
Chrysene	000218-01-9			Soil												
Dibenz[a,h]anthracene	000053-70-3			Soil	0	0		0								0
Indeno[1,2,3-cd]pyrene	000193-39-5			Soil												
Lead and Compounds	007439-92-1			Soil	0.76		0.76	0.76			0.76	0.76				
Mercury	007439-97-6			Soil				0.01			0.01					0.01
Methylnaphthalene, 2	000091-57-6			Soil	0											0
Naphthalene	000091-20-3			Soil			0									0
Phenanthrene	85-01-8			Soil				0								
Pyrene	000129-00-0			Soil				0								
Silver	007440-22-4			Soil					0							

	Soil	0	0	0	0	0	0	0	0	0	0	0
	Sum:	1.05	0.09	1.03	0.93	0.27	0.09	0.09	0.09	0.86	0.85	0.09

Site Worker-Non Cancer Risk Output by target organ																
Chemical Name	CASRN	Media	Heart	Liver	Blood	Kidney	Skin	Endoc	Eye	Immu	Nerve	GenUr	Respi	Other	Devel	Gastro
Acenaphthylene	208-96-8	Soil														
Arsenic, Inorganic	007440-38-2	Soil														
Barium	007440-39-3	Soil	0.04		0.04		0.04							0.04		
Benzo[a]anthracene	000056-55-3	Soil														
Benzo[a]pyrene	000050-32-8	Soil														
Benzo[b]fluoranthene	000205-99-2	Soil														
Benzo[g,h,i]perylene	191-24-2	Soil														
Benzo[k]fluoranthene	000207-08-9	Soil														
Cadmium (soil)	007440-43-9	Soil														
Chromium VI (soil)	018540-29-9	Soil														
Chrysene	000218-01-9	Soil	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	0.02	
Dibenz[a,h]anthracene	000053-70-3	Soil	0	0		0				0						
Indeno[1,2,3-cd]pyrene	000193-39-5	Soil														
Lead and Compounds	007439-92-1	Soil	0.27		0.27	0.27				0.27	0.27					
Mercury	007439-97-6	Soil								0			0			
Methylnaphthalene, 2	000091-57-6	Soil											0			
Naphthalene	000091-20-3	Soil	0										0			
Phenanthrene	85-01-8	Soil								0			0		0	
Pyrene	000129-00-0	Soil								0						
Silver	007440-22-4	Soil	0							0						
		Sum:	0.33	0.02	0.33	0.3	0.06	0.02	0.02	0.02	0.29	0.29	0.02	0.02	0.02	0.06

Interpretation of Results Summary?

Values associated with "Cumulative Cancer Risk" and non-cancer "Sum" that are

less than or equal to 1.00 are within acceptable cumulative risk levels.

NQ means not quantifiable due to lack of a cancer slope factor.